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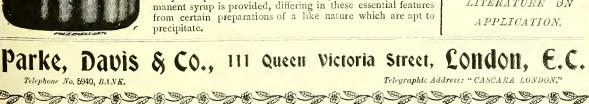
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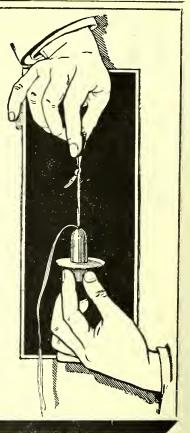
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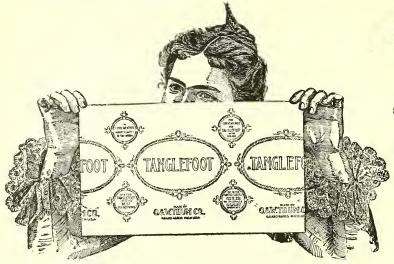
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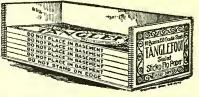
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I thought all had gone together;
My friends and comrades all lie dead
(Excuse the tears I'm shedding)—
They each lie low in their last long bed
In the 'Cemet'ries' of Reading."

Said his wise old friend, "I have known, I have heard, I have seen some funny capers,
And I've grown-quite fat ('pon my innocent word)
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But of all the deadly, stick=tight things
To bring things to a heading,
There is naught can clip our fragile wings
Like the 'Cemet'ries' of Reading."

Then they plucked up heart and flew away;
And they stole and irritated,
And vexed the soul of the housemaid gay,
Nor thought of a doomsday fated,
Till they stood on a soft sweet "Cemet'ree,"
And then grew dumb and dumber.
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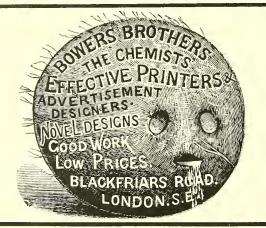
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Evans, Lescher & X stob
E Godail, Backhouse & Co.
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Freasdale & Wobb
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Hovenden & Sons, Lim.
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Sanger & Sons
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Washington Chemical Co.

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Trade Mark Protection Society

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PESSARIES Rendoll, J. W.

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Maxwell, Bayes & Co.
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Howards & Sons
Kelpion Co.
Kirby, H. & T., & Co., Lim.
Lageman, G.
Lambert Phar acal Co.
Lotthouse & Saltmer
Macfarlan, J. F., & Co.
Mackey, Mackey & Co.
Manners & Hopkinson
Bartindale, W.
May & Baker, Lim.
May & Baker, Lim.
May Bay & Co.
Potter & Clarke, Lim.
Sinth, T. & H., & Co.
Squiro & Sons
Stern Bros.
Tyrer, T., & Co., Lim.
White, Alfred, & Sons
Wiccox & C.
Thompson
Woolley, Sons & Co., Lim.
Wyley's, Lim.
Zimmor & Co.
PILL MACHINES
Bennett, Sons & Shaar, Lim.

PILL MACHINES

Bennett, Sons & Shears Lim

Pindar, J. W.

Bennett, Sons & Shears Lifts Pindar, J. W.

PILLS, Coated. &c. Allen & Hanburys, Lim. Beecham, Thomas Bloasdale & Co., Lim Cox, Arthur H., & Co. Davies, Gibbin & Co. Davy, Hill & Sou, Yates & Hicks Duncan, Flockhart & Co. Evans, Gadd & Co. Hearon, Squire & Fraucis Holloway, Professor Kearsley, C. & G. Lloyd, T. Howard, & Co. McKesson & Robbins Manners & Hopkinsou Parke, Davis & Co. Scottish Sugar-coated Pill Co. Wand, S. (Fearl Coated) Warner, W. E., & Co. (Coater) Wileys, Lim.

Wyleys, Lim.

PLASTERS
Beiersdorf, P., & Co.
Chesebrough Mf 'g. Co.
De St. Datmas, A.
Evans, Sons & Co.
Mather, W., Lim.
Seabury & Johnson
Solport Bros. (Court)

POLISHING Bradley & Bourdas (Albatum) Fordnam, W. B., & Sons, Lim. Oakoy, J., & Sons, Lim. Baimes & Co. (Stockton)

PRINTING
Bowers Bros.
Corsan, J. R. (Glass)
Ford, Shapland & Co.
Harrison & Waido
Silverlock, H
Townsend, J.

QUININE Boehringer, C. F., & Sohne Howards & Sons Imperial Quinino Co. Zimmer & Co.

RENNET Duncan, Flockhart & Co. Tomlinson & Hayward

RESPIRATORS
Wallach Bros
Zimmer & Co.

RUBBER STAMPS Bond, J. (Crystal Palace) Richford, E. M.

SACCHARIN Anglo-Continental Chomical Works, Lim. Saccharin Corporation, Lim. SALICIN Macfarlau & Co. Smith, T. & H., & Co.

SAUCES, PICKLES

Goodall, Backhouse & Co.

SCHOOLS, &c.

Edinburgh Central School
Glasgow School (J. Lothian)
Imperial College Gavis, F.)
Leeds College of Pharmacy
Liverpool School
London College
London College
London College of Pharmacy
for Ladies
Manchester Col. of Pharmacy
Metropolitantol.of Pharmacy
North of England School
Northern Collegeof Pharmacy
Royal Dispensary! Edinburgh
Sheffield College of Pharmacy
South London School of
Pharmacy
South London School of
West of School of
West of School College
West of School of
West of School of
SEA SALT

SEA SALT Tidman & Son, Lim.

SEEDS Potter & Clarke

SELTZOGENES Geraut, E., & Co. Thessier, E.

Hovenden & Sons (Euxesis) Lloyd, A., & Co. (A. S. Lloyd's Euxesis) SHAVING

SHEEP DIP Fletcher Bros. & Co. Sanitas Co., Lim. Tomlinson & Hayward

SHOP FITTERS Alstrom, C. Ayrton & Saunders Bowling & Govier Bygrave, J. & W. Ellison, F. E., & Co., Lim. Evans, Sons & Co. Howlett, S., & Son Josephs, Philip, & Son Maw, S., Son & Thompso Parnall & Sons, Lim. Treble, G., & Son

Meggett, S., & Sons, Lim.

SOAP & Hanburys, Lim. Allen & Hanburys, Lim.
Ayrton & Saunders
Bronnley, H., & Co.
Cal ert, F. C., & Co.
Cook, E., & Co.
Foster, M. E.
Gibbs, D. & W. (Medicated)
Mulhens, F.
Pears, A. & F., Lim.
Resinol Chemical Co.
Sanitas Co., Lim.
Vinolia Co., Lim.

SPECTACLES. &c. Botwright & Grey Darton, F., & Co. I awrence, Henry Raphael, J., & Co.

SPONGES Cohen, I. & M. Cohen, I. & M. Cresswell Bros. & Schmitz Phillips, J., & Sons STERILIZERS

Browne & Sayer Hawksley, T. (Milk) STOPPERS

Austin & Co. (Sprinklers) Barnett & Foster Melin, C. Stipendum Stopper Co., Lim.

Melin, C.
Stipendum Stopper Co., Lim.

SURGICAL
Bailey, W. H., & Son
Barclay & Sons, Lim.
Benersdorf, P., & Co.
Burgoyne, Burbidges & Co.
Darbon, Gibbs & Co.
Darbon, Gibbs & Co.
Davol Rubber Co.
Davol Rubber Co.
Davol Rubber Co.
Eschmann Bros. & Walsh
Fassett & Johnsou
Ferris & Co.
Findlay, John J., & Co., Lim.
Gilbertson, H., & Sons, Lim.
Haywood, J. H.
Krobne & Sesemann
Liverpool Pa:ent Lint Co.
Lynch & Co., Lim.
Macfarlan, J. F., & Co.
Maw, S., Son & Thompson
Mimeralized Rubber Co.
Oppenheimer, Son & Co., Lim.
Powell & Barstow
Quelch, H. C.
Robinson & Sons
Sanitary Wood Wool Co., Lim.
Schutze, F., & Co.
Spongio Piline
Wood, Vincent

STOVES Clark, S., & Co., Lim.

SUGAR Mactie & Sons

SYPHONS Barnett & Foster Camwal, Lim. Geraut, E., & Co. Idris & Co., Lim. Kilner Bros. | Melin, C.

SYRUPS Beckett, W., Sons & Co. Fletcher, Fletcher & Co. (Liquors) Stevenson & Howell

TABLETS
Corsan, J. R. (Advertising)
Lamtert, A., & Co.
Roberts & Sheppy

Tea Thomas, O., & Co. Tower Tea, Lim.

TEETHING PADS
Barclay & Sons, Lim.
Cartwright, A. S.

THERMOMETERS Bailey, W. H., & Son Comitti, O., & Son, Wells & Lyon, Lim. Darton, F., & Co. Pastorelli & Rapkin

TINCTURES Evans, Sons & Co. Hewlett, C. J., & Son Lloyd, T. Howard, & Co. Parke, Davis & Co. Southail Bros. & Barclay, Lim. Wyleys, Lim.

TOOTH PASTE Beecham, T., & Co.,
Beiersdorf, P., & Co.,
Lewsbury & Brown
Maw, S., Son & Thompson
Parke, Davis & Co.,
Sutton, O., & Co.
Woods, M. (Areca)

TRADE MARK AGNTS Barker, Reginald W. Chapman, J. C., & Co. Trade Mark Protection Society

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Singleton & Cole, Lim.

TOILET
Allen & Hanburys, Lim.
Anthlito Toilet Co.
Ayrton & Saunders
Burroughs, Wellcome & Co.
(Lanolline)
Crown Crystalline Co.
Dee Oil & Co., Lim.
Hovenden & Sons
Lynch & Co., Lim.
Major & Co., Lim.
Mayor & Co., Lim.
Maw, S., Son & Thompson
Moseley, D., & Sons
Newbery, F., & Sons
Quelch, H. C.
Sanitas Co., Lim.
Solport Bros.
Southall Bros. & Barclay
Squire & Sons
Squire & Squire & Sons
Squire & Sons Tidman & Son, Lim. Townsend, J. (Paper) Vinolia Co., Lim.

VACCINATION Maw, S., Son & Thompson Vaccine Association (Lymph)

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VASELINE Chesebrough Co

VETERINARY CTTERINAY
Corry & Co. Lim.
Day & Sons
Day, Son & Hewitt
Elliman, Sons & Co.
Hanner, Sons & Co.
Lim.
Co. Lim.
Spratt's (Dogs)
Walker, Troke & Co.
Wyleys Lim.

VINEGAR Grimble & Co. VINOLIA Superfatted Vinolia Co., Lim.

WEED KILLER

Acme Chemical Co., Lim. Fletcher Bros. & Co. Sauitas Co., Lim. Tomlinson & Hayward

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DRUGGISTS
Allen & Hanburys
Allen, S., & Son
Baiss Bros. & Stevenson
Baiss Bros. & Stevenson
Barson, Harveys & Co.
Bleasdale & Co., Lim.
Burgoyne, Burbidges & Co.
Bush, W. J., & Co.
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Davies, Gibbins & Co.
Bush, W. J., & Co.
Corbyn, Stacey & Co.
Davies, Gibbins & Co.
Bush, W. J., & Co.
Evans, Sous & Co.
Harker, Stagg & Morgan
Hearon, Squire & Francis
Hewlett & Son
Kemp, Wm., & Son
Lloyd, T. Howard, & Co.
Lothouse & Saltmer
London Essence Co.
Macfarlan, J. F.
Manners & Hopkinson
Edition
Macfarlan, J. F.
Manners & Hopkinson
Raimes, Clark & Co.
Raimes, Clark & Co.
Taylor & Colledge
Willows, Francis, Butler
Thompson
Woolley, Jas., Sons & Co. Thompson Woolley, Jas., Sons & Co. Wyleys, Lim.

WINES, SPIRITS, BEER. &c.

BEER, &c.

Baiss Bros. & Stevenson
Bowen & McKechnie
Burrough, J.

Coleman & Co., Lim.
Fletcher, Fletcher & Co.
Goodall, Backhouse & Co.
Millar, A., & Co. (Orange)
Phillips, G., & Co.
Robinson, B. (Orange)
Smith, S., & Co., Lim. (Orange)
Wilcox & Co., Lim.
Wright, F., Mundy & Co.
Wyleys, Lim.

[4]

### PILLS and TABLETS. "BLAUD"



Facsimile, full size

## "BLAUD" PILLS, Pink, Sugar-coated.

In screw metal-capped square Bottle, elegantly labelled. Specially designed artistic wrappers in glazed green, as here shown, per dozen, 5/3.

Per gross 60/-, in lots of 6 dozen and upwards.

Gelatine coated, ovoid or round, in square actinic Bottles of 100, each in buff carton case, per dozen, 4/6.

### "BLAUD TABLETS.

Sugar-coated.

In oval screw-capped Flasks, with artistically engraved label as here shown.

> No retail price given. Per dozen 3/-, or 6 dozen for 16/6.

### "BLAUD" PILLS.

By W. R. WARNER & CO.,

Reach the Consumer through the Retail Druggist only.



Facsimile, full size.

F. NEWBERY & SONS (Estd. over 150 Years), 27 & 28 Charterhouse Square, LONDON, E.C.

## WARRICK BROTHERS, LOZENGE MAKERS.

PORTPOOL LANE, LONDON, E.C.

BUY YOUR SPONGES FROM THE DIRECT IMPORTERS.

Of Every Description always on hand.

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## CORBYN, STACEY & COMPANY, LTD.

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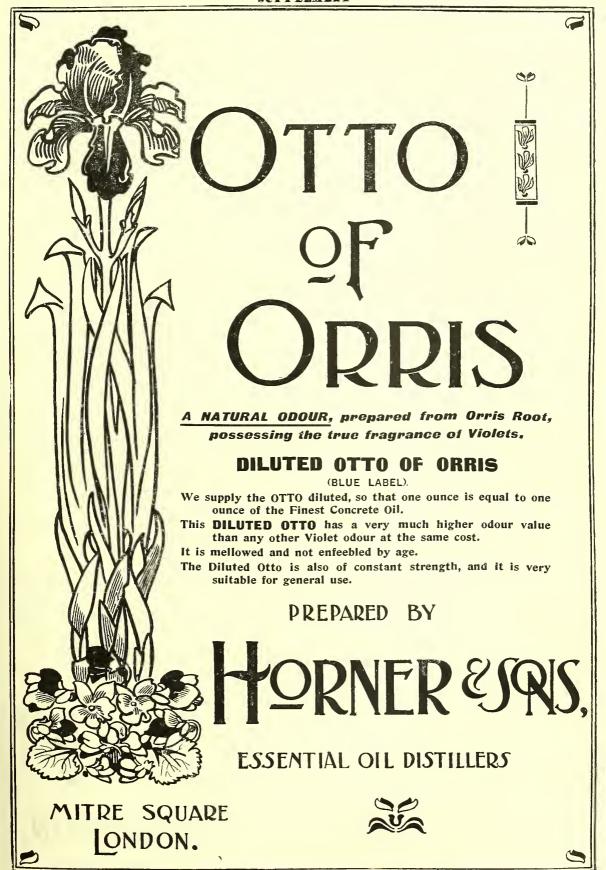
### MANUFACTURERS OF

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CALAMINE (Corbyn) No. 3, and other Calamines from Native Ore.

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BEST QUALITY

## TOOTH BRUSHES

78/- per Gross.



Each Bearing Trade Mark and Warranted.



NO CHARGE FOR STAMPING WITH NAME OF
CUSTOMER, WHEN NOT LESS THAN 1 GROSS OF ANY
PARTICULAR BRAND ARE ORDERED.

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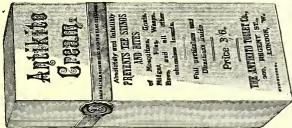
(Of Improved Qualities)
SAMPLES SENT POST FREE ON APPLICATION.

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	Per lb.					r assorted,	
Maw's No. 11 Lint	. 1/4	1	•		•	1/2	\
Maw's No. 1 Hospital	. 1/4	B/C				1/2	a/c.
Maw's No. 2 Hospital	. 1/7	1	•			1/5	thly
Maw's Superior Hospital	. 1/8	Monthly			,	1/6	Monthly
Maw's Superior Surgeons'	. 1/10	cent.			4	1/7	cent.
TAYLOR'S Super A1 Flax	} 3/-	per	,	6		2/6	5 per
Ditto, in 1-oz. packages					e	3/-	

S. MAW, SON & THOMPSON,
7 to 12 ALDERSGATE ST., LONDON, ENGLAND.

ANTIKITO CREAM.



ANTIKITO CREAM is an absolute preventive of the bites of mosquitoes and al obnoxious insects, and renders the skin delightfully soft, velvety, and supple. It relieves the pain of sunburn, removes freckles, blotches, and other imperfections of the skin, and has deliciously retreshing and tonic qualities. ANTIKITO CREAM is a triumph of scientific research; and is guaranteed to contain nothing of a poisonous or deleterious nature.

Prepared and Sold in Bottles, 3/6 each, by THE ANTIKITO TOILET COMPANY, 200 Regent Street, LONDON, W. Special Terms to the Trade on analysis tion.

Special Terms to the Trade on application,



X Series. Stock designs for

Health Salt, Insect Powder, Mag. Cit., Foot Powder,

Horse Powder, Cd. Licorice Powder, Blaud's Pills. Vaseline, &c., &c., &c.

SPECIAL DESIGNS PRODUCED.

X49.—Carbolic Disinfecting Powder, 24/- per gr. FILLED, 2 lbs. each 45/-

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As old-established Perfume Distillers we offer direct to the Trade our Extra Concentrated

### Floral Extracts

in glass-stoppered bottles or in tins on specially favourable terms. Also

Essential Oils, Perfumed Oils and Pomades, and Rose Water.

Quaranteed pure and the finest on the market.

Samples and Price List of

## Claude Raynaud & Cie.,

Grasse, France,

or 7, 8, & 9 Hosier Lane, London.

# IN YOUR

270

MARVELLOUS PREPARATION. Refreshing as a Turkish Bath.

Splendid Cleansing Preparation for the Hair. Allays the Irritation caused by Mosquito Bites. Restores the Colour to Carpets.

Of all Chemists, Etc.

Invaluable for Toilet Purposes. Removes Stains and Grease Spots from Clothing. Invigorating in Hot Climates. Cleans Plate and Jewellery.

Price 1s. per Bottle.

SCRUBB & CO., GUILDFORD STREET, LAMBETH, LONDON, S.E.



(REGISTERED)

(ANTI-ZYMOTIC),

MESATEE CRYSTALS are delicately perfumed Rose, Lemon, Lavender,

MESATEE CRYSTALS for the Bath and Toilet are a great luxery, exhibitating and refreshing apart from their Hygienic properties, which render them especially useful for Gouty and Rheumatic subjects.

MESATEE CRYSTALS for the Nursery and general Domestic purposes are invested in the subjects.

MESATEE CRYSTALS for Softening the Water are unequalled. Highly recommended by the Medical Profession. No Household should be without " MESATEE CRYSTALS."

Price in Tins, 1/-, 2/-, and 7/-. Office and Works: THE CROWN CRYSTALINE CO.

(Opposite G. W. K. Station), ACTON, W.

PRIZE MEDAL

Recommended by Eminent Medical Men.

Unscented.

Although low in price, it ranks with high-class Scaps, and is altogether the best extant for producing a Clear and Healthy Skin.

The longer it is kept the more it improves and increases in value. LIBERAL TERMS TO THE TRADE.

BRECKNELL, TURNER & SONS, LIMITED,

16, 17, 18 PETER STREET, SOHO, W. RSTABLISHED 1862.



View of Waterfall at Cader Idris, North Wales. The Property of Idris & Co., Ltd.

## 9 Gold Medals.



have during the past three months analysed Fifty samples of Messrs. IDRIS' MINERAL WATERS, obtained by myself from various shops in London and the suburbs. These samples consisted of 20 of Potash Water, 24 of Soda Water, and 6 of Lithia Water. In every case the sample was found to contain the full quantity of mineral salt specified on the label. The following were the actual amounts found:-

SODA WATER-

Found. Guaranteed. 10.2 to 11.1 grs. per pint ... 10 grs.

POTASH WATER-

Found. Guaranteed. 30.4 to 34.8 grs. per pint... 30 grs.

LITHIA WATER-

Found. Guaranteed. 10 to 11:1 grs. per pint ... 10 grs.

ERNEST J. PARRY,

B.Sc., F.I.C., F.C.S.,

Analytical Chemist.

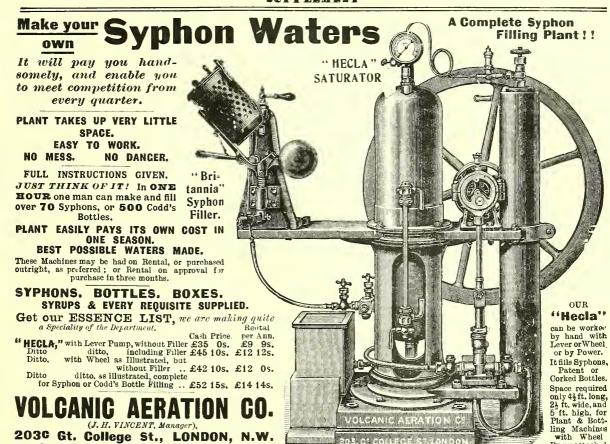
## IDRIS & CO., LTD.

Head Office and Factories: CAMDEN TOWN, LONDON, N.W.

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Depots: ENFIELD, WATFORD, TEDDINGTON, BOURNEMOUTH, PORTSMOUTH, GLASGOW.

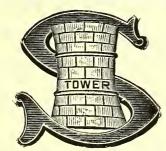
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# STOWER'S LIME JUICE

See that each Bottle bears the REGISTERED TRADE MARK, and also the Signature (in Red) of the SOLE MANUFACTURERS.

Close to Camden Town Station, North London Railway.



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### SOME REASONS FOR STOCKING.

- It is the ORIGINAL.
- It is absolutely PURE.
- It is attractively PUT UP.
- It is largely ADVERTISED.
- It is in great DEMAND.
- It is supplied to HER MAJESTY.
- It has been specially selected for the Hospital Ships
  "PRINCESS OF WALES" and "MAINE," and the
  Imperial Yeomanny Base Hospital.
- It is exclusively recommended by the MEDICAL PROFESSION.
- It is supplied to all the principal HOSPITALS.
- It takes up no time to Sell.
- It leaves a Fair Profit.

FREE TASTING SAMPLES AND COUNTER BOTTLES,
Handsome Show Cards, Attractive Bills,
and other Advertising material liberally and
freely supplied to the Trade.

Sole Manufacturers and Proprietors,

ALEXANDER RIDDLE & CO., LTD., COMMERCIAL ST., LONDON, E.

Telegraphic Address-"SACARINO LONDON."

Telephone No. 197, Bank.

## The Saccharin Corporation, Ltd.

165 QUEEN VICTORIA STREET, LONDON, E.C.

# Saccharin OF ALL STRENGTHS

Highest Possible Strength.—550 times sweeter than pure Cane Sugar. This strength is recommended in preference to any other.

Ordinary Strength.—330 times sweeter than pure Cane Sugar.

**Soluble.**—475 and 300 times sweeter than pure Cane Sugar.

Crystals.-450 times sweeter than pure Cane Sugar.

Crystallose.-440 times sweeter than pure Cane Sugar.

THE 3 LAST STRENGTHS ARE SOLUBLE IN COLD WATER.

The Saccharin Corporation, Limited, are the owners of All Patents for the United Kingdom and Colonies for the commercial manufacture of Saccharin, and their Saccharin is the only Saccharin that can be purchased without risk of legal proceedings or the necessity for any Indemnity.

FULLEST PARTICULARS ON APPLICATION TO

## The Saccharin Corporation, Ltd.

165 QUEEN VICTORIA STREET, LONDON, E.C.

# SACCHARIN.

## THE SACCHARIN CORPORATION

V.

THE ANGLO-CONTINENTAL CHEMICAL WORKS, LIMITED,
AND REITMEYER.

The following is an extract of the Judgment of Mr. Justice Buckley, originally delivered on 6th April, 1900, and subsequently confirmed by the Judge on 8th May, 1900, relating to the Injunction granted against the Defendants:

"This Court doth Order and adjudge that the Defendants, the Anglo-Continental Chemical Works, Limited, and Robert Reitmeyer, their servants and agents, be restrained, during the continuance of the Letters Patent granted to Harold Imray, dated 29th December, 1894, and No. 25273 in the Statement of Claim mentioned from importing into England and from manufacturing, selling, supplying and using in England Saccharin of the strength 1.555, 1.350 and 1.300 and Saccharin of strength 555 under the name of "SACCHARIN" "ITGRESS BRAND" manufactured according to or in the manner described in the Specifications filed in pursuance of the Applications for the said Letters Patent or according to or in manner only colourably differing from the same and generally from infringing the rights of the Plaintiffs in respect of the said Letters Patent."

## THE SACCHARIN CORPORATION, LTD.,

165 QUEEN VICTORIA STREET,

LONDON, E.C.

Approved by the British Analytical Control (See their Stamp on every Tin).

FOOD FOR INFANTS, INVALIDS, AND THE AGED.

A totally unsolicited Report of a Medical Man's experience with the Diastased Farina Food.

Yorkshire, December 2, 1896. fied with the result. Milk is the DEAR SIRS,—Since August I have been trying your "Food," and I am well satisfied with the result. Milk is the most perfect food, but when you have to reckou with a low type of stomach, or a poor class of milk, assimi'ation is imperfect, dyspepsia frequent. The addition of your "Food" prevents the latter and hurries the former. I have had admirable results in the treatment of Phthisis, Ohlorosis, Gastric Ulcer, Atonic Dyspepsia, and Neurasthenia.

Yours faithfully, OOLIN CAMPBELL, M.R.C.S.

In Tins, 1/6 and 2/6 each, from all Chemists.

Manufacturers: -E. BEANES & CO., Hackney Wick, LONDON, E.



Registered Trade Mark.

Patented in the U.K. and Abroad.

**PLASMON** is an absolutely pure, soluble milk albumen, free from all chemicals, and being tasteless and odourless is capable of being used in any and every form of food. It replaces all other nitrogenous substances in the dietary of the healthy, the weak, the aged, and the young, and is used in many of the principal Hospitals. It is prescribed and strongly recommended by eminent physicians throughout the country. See *Lancet*, August 11, 1900, p. 404. Descriptive literature will be forwarded on application.

**PRICES** 

Packets, each about 1 lb., 2/6. \frac{1}{2} lb., 1/4. 4 lb., 9d.

Plasmon Biscuits, Plain or Sweet. tins about 1 lb., 1/6,

2 lbs., 3/-. Plasmon Chocolate, at 3/- per lb. Retail Trade Discount 15 per cent. on orders of £1 and upwards, car. paid.

THE PLASMON SYNDICATE, LIM., 56 Duke St., Grosvenor Square, LONDON, W.

## IT WILL PAY YOU TO PUSH COOMBS'

for Infants and Invalids.

AWARDS.

COLD MEDALS.



Recommended by the Medical Faculty and Leading Analysts.

Drs. Goodfellow and Granville H. Sharpe's Reports.

Bears a good profit, and is only supplied to those who agree to sell at full advertised prices.

TERMS ON APPLICATION.

COOMBS' "EUREKA" AERATED FLOUR CO., LTD. Lanton Boulevard, Nottingham, 8 & 8a Farringdon Road, London, E.O.

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THE NEW VINEGAR

for either Table use or Cooking and Pickling purposes. Superior in strength and flavour to all other vinegars, and absolutely pure. Unlike other vinegars, it contains no injurious acids, and is therefore strongly recomno injurious acids, and is thereformended by the Medical Profession.

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DISTILLED WHITE VINEGAR.

SOLD BY ALL CROCERS, STORES, CHEMISTS, &c.

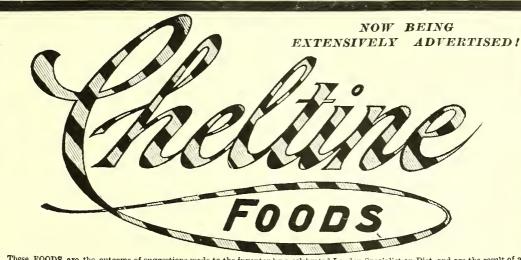
SAMUEL GULLIVER & CO., LIMITED,

7 Argyle Street, Oxford Circus, W.

Works: 108 to 112 Be.vedere Road, Lambeth, and at Aylesbury.

"VINDAYT" and "DATONE" are absolutely pure Wine Vinegars, and are much preferable to Malt Vinegars.

Please ask us for Samples of British Wines and Cordials.



These FOODS are the outcome of suggestions made to the inventor by a celebrated London Specialist on Diet, and are the result of a combination of Medical Skill, Scientific Knowledge, and Practical Effort.

### CHELTINE DIABETIC FOOD.

Food 2/6 & 8/- per Tin, Biscuits 2/- per Box.

Food 1/- & 2/6 per Tin, Biscuits 2/- per Box.

CHELTINE DYSPEPTIC FOOD.

Food 1/- & 2/6 per Tin, Biscuits 2/- per Box.

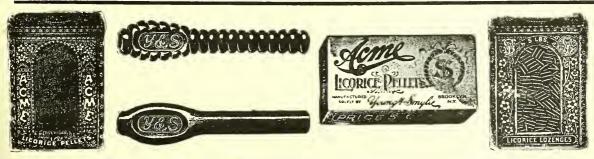
Food 1/- & 2/6 per Tin, Biscuits 2/- per Box.

CHELTINE INFANTS' FOOD.

1/- & 2/6 per Tin.

TRADE DISCOUNT 20%. TERMS—NETT CASH IN ONE MONTH. We are members of the P.A.T.A., and can only supply those who undertake not to sell under above prices. Carriage paid to all parts of the United Kingdom on parcels amounting to £1 and upwards. Cases and Boxes are returnable. An allowance of one-half is made if they are paid for.

WORTHS FOODS SYNDICATE, LTD., SPECIALISTS, Cheltine Works, CHELTENHAM.



The undersigned, who are the leading Licorice Specialty House in America, beg to announce that they have appointed

## MESSRS. F. SCHUTZE & CO.

Of 89 Southwark Street, LONDON, S.E.

w their SELLING ACENTS in Great Britain for the Chemist's trade. They will keep on hand ample stocks of our Corrugated Stick Licorice—sticks averaging one ounce, packed 80 sticks to box; Acmo Licorice Pellets, in 5-lb. glass-front tins and in 5-cent packages, 40 to box; Licorice Lozenges, in 5-lb. glass-front tins and in 5-lb. glass jars; Tar, Licorice, and Tolu Wafers, in 5-lb. glass-front tins; Purity brand Penny Sticks, packed 100 to box.

Y. & S. Stick Licorice (plain), 4, 6, 8, 12, and 16 sticks to lb., packed in laurel leaves, cases of 1 cwt.

We solicit through our above-named Agents an initial order for our various preparations, which we believe will appeal to the most exacting and discriminating taste.

YOUNG & SMYLIE, BOROUGH of BROOKLYN, N.Y. CITY, U.S.A.

ESTABLISHED 1845.



## Keystone Burgundy

No retailer has ever wasted any time over this wine, for there is not an element of speculation in it. When introduced to the consumer, the wine and the consumer combine and make you a steady profit of at least 25 per cent.

Moreover it is vigorously advertised, and has been for nearly twelve months without interruption.

The fact that you have it in stock is now enough to sell it, especially if the stock is placed where customers can see it.

May we send you a sample case?

## Hall's Wine

Also yields a minimum protected profit of 25 per cent. Window Bills and Counter Litera-

ture sent on application.

We have just published a new book-let. Every copy judiciously placed promotes business. We will print your name and address on the cover, and supply you with a quantity free, and carriage paid. Please apply for a parcel.

## Keystone Beef Wine.

A wine tonic for which there is a sale all the year round. Suitable for children and adults. 25 per cent. profit for the retailer.

Write for trade list.

Stephen Smith and Co., Ltd., Bow, London.

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THE 20TH CENTURY C.C.C. WHOLESOME DINNER WINE.

Concentrated Claret Cup 21/6 & 12/6 doz.

Wine Licence Required.

In bottles 6 & 12 to Gallon.

"We have little hesitation in placing as the first the Concentrated Claret Cup, which is a well flavoured compound that only requires aerated or plain water and a piece of ice to make the favourite heverage. It shou'd be popular."—Chemist and Druggist, June 3, 1899. "Health Salt" = GROSS 4 oz. Tins with lever lids, handsomely labelled. Oustomer's name & address printed on 1 gross assorted free.

Lemon Crystals = 36/= 2½ oz. direct squares of Oustomer's name and Customer's name and address printed on 1 gross assorted, free.

Brown Boot Polish 36/= {3 oz. white glass bottle, name on 1 gross, free.

Straw Hat Polish 21/=,40/= {All colours, Name on 1 gross assorted, free.

"P & O" Chutney 5/6, 10/=

Salad Dressing Cream 8/= (Prepared with Double Cream. 4 www.commend the Salad Dressing Cream, a piquant and inseparable compound which is ready for new without any addition whatever. — Chemist and Druggist.

Terms: Net Cash. Carriage Paid on £5 orders.

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## FRESH LEMON AND BITTER ORANGE PEEL

In accordance with the new B.P. of 1898. Out by Hand by the most skilful cutters, and highly commended by leading firms.

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THE CHEAPEST AND BEST IN THE TRADE.

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Treble Strength and Bright. LIQUID, CAKE, or ROLL.

Special Prices to Large Buyers.

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PEPTONIZED

These three preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage, the assimilation of which requires no digestive effort.

TINS 2s. 6d. HALF-TINS (SAMPLES), 1s. 6d. Obtainable Everywhere.

143, NEW BOND STREET, LONDON.

Proved Products of 170 years' reputation.



Price Lists, &c., on application.

TELEGRAPHIC ADDRESSES --

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250 COLD MEDALS AND DIPLOMAS.

ARE OF

EXCEPTIONAL VALUE.

PRICES-

11d., 1|1, 1|4, 1|6, 1|8, 1|10, 2|- per /b. In 1-lb., 1-lb. and 1-lb. Packets, and 5 7, or 10 lb. Tins.

APPOINTED. AGENTS

WRITE FOR TERMS TO

OTTO THOMAS, LIMITED, Proprietors of TEE-TO-TUN TEAS,

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"An emollient, soothing application for irritable skins, useful for chapped lips and hands, abrasions and eruptions of many kinds. In a thin layer over a wound it is an effective protective. . . . Such a layer forms an

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LANOLINE



# 'LANOLINE' TOILET . .



. SOAP

"An excellent and valuable preparation in which there is a distinct excess of 'Lanoline' over alkali."—LANCET.



Supplied
in boxes
containing
three tablets,
at 4/6
per dozen
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# TABLOID' BRAND BLAUD PILL



The excellence of 'Tabloid' Blaud Pill is equally striking whether judged from a therapeutic or a pharmaceutical standpoint. The British Medical Journal reports that it "Can be relied upon for administering carbonate of iron in an unoxidised state," the Chemist and Druggist describes it as "a solution of the ferruginous pill difficulty," and prolonged comparative tests have proved its great superiority as a means of increasing the haemoglobin in the blood. 'Tabloid' Blaud Pill is prepared with such high pharmaceutical skill that its ferrous sulphate and alkaline carbonate, whilst in a state of most intimate incorporation, are without interaction until after administration; the full therapeutic action of the nascent ferrous carbonate is thus effectively secured.

### LIST.

'TABLOID' Brand

",, Blaud (Pil. Ferrug.) gr. 4
representing 20 % of Ferrous
Carbonate
(plain or sugar-coated)
8 ottles of 100, 8s. 6d. per doz.

Blaud Pill Compound

Slaud Fill Compound
(sugar-coated)

B. Pil. Ferrus, (Baud) .. gr. 10
(= 20 % Ferri Carbonatis)
Pulv. Capsici ... gr. 1/4
Aloini,
Strychnine,
Acidi Arseniosi, aa gr. 1/30
Bottles of 100, 12s. per doz.

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R. Pil. Ferrug. (Blaud) .. gr. 4 (= 20.°/6 Ferri Carbonatis) Ext. Cascaræ Sag. Sic. gr. 1/2 Bottles of 100, 8s. 6d. per doz. 'TABLOID' Brand

,, Blaud Pill and Aloin

Slaud Fill and Aion
(sing arcoaled)
R. Pil. Ferrug. (Blaud) . . gt. 4
(= 20°/ $_0$  Ferri Carbonatis)
Aloini . . . gt.  $_1$ / $_2$ 0
Bottles of 100, 8s. 6d. per doz.

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R. Pil. Ferrug. (Blaud) ... gr. 4 (= 20 % Ferri Carbonatis) Acidi Arseniosi ... gr. 1/64 Bottles of 100, 8s. 6d. per doz.

n Blaud Pill with Arsenic and
Strychnine (sugar-coated)
B Pil. Ferrug, (Blaud) ... gr. 5
(= 20 % Ferri Carbonatis)
Acidi Arseniosi ... gr. 1/100
Strychnine ... gr. 1/100
Bottles of 100, 12s, per. doz.



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You shouldn't use any soap on an infant's skin.

### Vinolia Baby Soap

is the one to use.

FULL RETAIL PRICE, 1/6 per box of 3 tablets.

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VINOLIA CO., LTD., MALDEN CRESCENT, LONDON, N.W.



## PRICE'S GLYCERIN,

also GLYCEROL OF MALT (Price),

and Preparations as follows:

Glycerol of Malt (Price).

"	"	AA TOTT	Tr 1 hobitophitice.
22	,,	,,	Cod Liver Oil.
		ſ	Cod Liver Oil &
3-3	"	"	Hypophosphites.
22	13	39	Easton.
29	51	"	Cascara.
,,	***	"	Terebene.
"	91	,,	Iron.
			Creosote.
"	"	19	
99	**	97	Pepsine & Pan-
			creatine.
,,	N	**	Chemical Food.
,,	17	77	Hops.
,,	,,	,,	Linseed, Squill, &
	•	**	Ipecacuanha.
			Thecacaanna.

.. with Hypophosphites.

\* WRITE FOR SPECIAL TERMS.

### COMPOUND

# GLYCEROL OF HYPOPHOSPHITES

PRICE

Containing in a perfectly bright and neutral solution the Hypophosphites of Lime, Potash, Iron, Manganese with Quinine, Strychnine, &c.

Superior to similar preparations preserved with glucose or other sugars.

In Bulk (unstamped for dispensing), 1/8 per lb.; W. Quarts, 1/6 per lb. In Bottles (stamped) to retail at 2/6 and 4/8 cach

Supersedes Mineral Waters.
COMPOUND

# GLYCEROL OF MAGNESIUM SULPHATE

(PRICE).

A palatable cooling aperient, alterative, and blood purifier, suitable for delicate constitutions requiring saline treatment.

Pharmaceutical Department,

PRICE'S P.C. COMPY., Ltd., London, Liverpool, & Manchester.

LONDONI 42 CANNON STREET SATURDAY, AUGUST 18, 1900

Businesses for Disposal **Businesses** Wanted Premises to Let Auction Sales

### ALSO EXCHANGE COLUMN.

For Bargains see end of this Supplement.

Situations Vacant Situations Wanted Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

## CHEMISTS' TRANSFERS.

### MESSRS. ORRIDGE 56 LUDGATE

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

VENDORS have the advantage of Messrs. O. & Oo.'s direct attention and advice as to value without additional fee.

PURCHASERS are invited to forward a statement of their requirements, which will be notified in a register free of charge.

VALUATIONS having always been a prominent feature, Messrs. O. & Oo. trust that the lengthened period during which they have enjoyed the and straightforward manner.

1.—£1,250.—LONDON, N.W. (Main Thorough fare).—Good-class Dispensing and Retail Business; returns, under manager, over £1,250 per annum; net profit nearly £500 (proof given); the shop is commodious and handsomely fitted; capital stock, above the average; very desirable residence, held on long hase; valuation and premium for goodwill, to be arranged equitably.

2.—£600.—LONDON, S.E. (Good-class Suburb).—Dispensing and Retail Business; returns £600 (present rate); nicely-fitted shop and good stock; modern house, in good repair; about the value of stock and fixtures only required.

3.—£800.— NORTHERN HEIGHTS.—Old established, good-class Retail and Dispensing Business; returns £900; prefit 50 per cent. gross; handsome shop and good stock; very desirable residence, held on lease; about £800 required; vendor retiring.

4.—£500.—LONDON, S.E. (Market thoroughfare).—Ready-money Retail and Prescribing Business; returns nearly £500; profit £236; the shop is nicely fitted and well stocked; commodious house, held on long lease; valuation of stock and fixtures only required.

5.—£50.—£50NDON (Good-class Suburb).—Dispensing and Retail Business; returns exceed £500; very well-fitted shop and good stock; price £400, about the value of stock and fixtures.
6.—£900.—£0NDON, N.W.—Old-(stablished Retail and Dispensing Business; returns between £500 and £900 per annum; the shop is attractive, and is well-fitted and stocked; comfortable residence; price about £760.

7.—£600.—LONDON, W.—Very old-established Business; returns exceed £600, all profitable work; single-fronted well-fitted shop; good house; reasonable offer wanted,

8.—£700. — CHATHAM (near).—Good-class Retail and Dispensing Business, situate in the main street of a good business town; returns £700; profits £0 per cent. gress; vecdor having purchased a larger business, is disposed to treat an immediate purchaser liberally; particulars on applica-

9.—£400.—EXETER (within easy distance of).—Unopposed Business; returns exceed £400; net profit £150; dcuble-frented thop; large (residence, garden and conservatory; rent £30 yearly; vendor's own property; price £300.

10.-£550. - DEVONSHIRE. - Ulopposed Business, situate in the centre of town; corner position; returns £150, net profit £180; commodious house; rent £55; new lease will be granted; price, valuation of stock and fixtures and small premium.

11.—HOME COUNTY.—Very old-established Business, giving a net profit of about £250 yearly, for immediate Disposal; the shop is attractive, and is fitted in malacgany; six-roomed houte, private entrance; prico about £500.

about ±500.

12.—£350.—STAFFORDSHIRE.—Old-established Business; returns present rate £350, increasing; several good Proprietaries are included; large double-frouted shop, neatly fitted, good windows; cummodious residence, private entrance; large garden; price £200.

13.—£550.—GLOUCESTERSHIRE (Small Market Town).—Good-class Retail, Dispensing, and Agricultural trade; returns about £550; net profit £200; the shop is nicely fitted and well stocked; house contains 9 rooms; private entrance; good garden; lease if wished; price £450.

14.—£850.— CARDIFF.— Shipping and Family trade; returns last year about £850; profits good; price £500.

## Particulars of any of the above will be furnished on application.

## N.B.-NO CHARGE TO PURCHASERS.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. Orridge & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the special attention of a London Agent.

SPECIAL NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale suitable for Gentlemen with small capital, from £200 to £500. & CO., 56 LUDGATE HILL, LONDON, E.C.

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3s. 6d. for 50 words or less; 6d. for every 10 words beyond

### MARKET PLACE, DEWSBURY.

SALE BY AUCTION, on Tuesday Lext, August 21, Fixtures and Fittings of the late Abraham Foster, Chemist: Drawers, Mahogany Counter, Five Mahogany Oases, Shop-rounds (pain and recess labels), Blue Jars and Fancy Jars, Hygienic Gas-stove, Bras Scales, &c., Sale at 2 o'clock.

### TO LET

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

RADFORD.—Finest Shop in the West Ridius, to Let; prominent corner in one of the busiest thoroughfares; near brain terminus; or area, to suit incoming tenant, up to 3,000 yards, with or without seement; electric light; very suitable for Gash Chemistor Drug-store;

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3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

STOCK and Fixtures of an old-established Chemist's Shop; would do for a Branch. X. Y. Z., 34 Ohuroh Street, Preston,

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3s. 6d. for 50 words or less; 6d. for every 10 words beyond

NVESTMENT with Employment.—Advertiser, having a Freehold Steam Factory at liberty, purposes to work there certain valuable discoveries, yielding large and immediate profits, in the cheap production of articles connected with the Oil and Chemical trades, and seeks tentlemen who seek to invest capital, or a Firm, to join him. Apply by letter, Mr. Binnie, London and County Bank Chambers, Nav Order Street

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VALUER.

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References to Principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

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VALUATIONS.—The long and varied experience of F. J. BRETT in valuing all classes of Businesses throughout the United Kingdom, together with his ever-increasing connection, readers it desirable that you should secure his services, in order to have your interests well protected. Stocks earefully taken,

£860 returns.—LONDON, W.—Good-class Retail, with net profit of over £300; good premises; price £750.

£800 returns.-LONDON, W.-Light Retail, with fair Dispensing; profit good; sale solely through ill-bealth; good corner premises; price £625.

£700 returns.—LONDON, S.E.—Family Retail, Prescribing, &c., with appointment worth £60 per annum; price £500.

£1,000 rcturns.—STAFFS.—Old-established Retail, with good Specialities; in present bands 25 years; good house and shop; valuation £400 to £500.

£880 returus.—LAKE DISTRICT.—General Light Retail, with fair Dispensing and Prescribing; good bouse, garden, &c.; price £500.

£660 returns.—SHROPSHIRE.—Light Retail; good Prescribing and own preparatious; nice house; rent £35; price £450.

£775 returns.—LONDON, N.—Exceptionally profitable Retail, as half of returns are in own preparations; situation good for up to date trade; price £650.

£800 returns. — WORCESTERSHIRE.— Unopposed Light Retail Prescribing, &c.; net profit £240; low rent, on lease; price £300.

Mr. BRETT bas buyers for large concerns returning from £5,000 to £10,000, who are prepared to pay cash down.

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Established 1870.

VALUATIONS are in all cases conducted by a member of the firm, as: the most careful attention to details, which is so essential, may be relied upon.

1.—YORKSHIRE.—Good-class Light Retail Dispensing and Prescribing Business; returns £1,100 with good profits; low rent; entering medical cause of sale; price £750 or offer.

2.—SURREY.—First class Retail and Dispensing Business; returns £1,350; full prices for all but patents; handsomely-fitted shop, well stocked; price £1,150.

3.—WEST OF ENGLAND.—High-class Drug Store; large town; returns £2,400 under management; low rent, long valuable lease; price £1,500 or offer.

4.—NORFOLK.—Light Retail and Prescribing Business; returns over £1.200; expenses small; good house and garden; no heavy trade; price £650.

5.—SUFFOLK.—Light Retail and Prescribing Business; returns £450; convenient Lonse, with garden; low rent; on lease; price £300.

6.—NORFOLK (good market town).—Retail, Dispensing, and Prescribing Business; returns £750; net profit £250; same hands many years; retiring; good house; price £600.

7.—CHESHIRE (small town).—Retail, Dispensing, and Prescribing trade; raturus £700, with excellent profits; good house, well-fitted shop; good stock; price £500.

8.—LEICESTER.—Good class Light Retail and Dispensing Business; returns £600 at good prices; rent £32; convenient house, well-fitted shop, heavily stocked; price £520.

9.—CAMBRIDGE.—Village Business, very much neglected; population 2000; no opposition for 4 miles; nice house, large garden; rent £18; valuation only required, about £150.

10.—LONDON, N.—Death vacancy: returns £500 under management ought to do £1,000; select Retail and Dispensing: price £300.

### UP-TO-DATE CHEMISTS

Should turn to page 36 in this year's CHEMISTS' AND DRUGGISTS' Diary, whore we give two reasons why all Chemists should have an annual "STOCKTAKING."

## **JUDD & MANNERS**

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Transfer Agents and Accountants,

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LONDON, S.E.

We are instructed to offer for immediate sale a good modern Cash Retail and Prescribing Business, returning about £15 a week under indifferent management, yielding nearly £250 clear profit; splendid corner position in main road; trams, &c., pass the door; large, handsome shop, lined throughout with mirrors, and well stocked; electric light; good house, with small lawn, yard, and private entrance; rent £60; lease 9 years; splendid opening for Dentistry, for which the premises are very suitable. Further details on application. Please call.

CRYSTAL PALACE DISTRICT.

Neglected Light Retail Dispensing and Prescribing Business; returus £550 (let down during illness); rent £45; lease, 16 years to run; good 10-roomed house, bath, &c.; returns easily increased; price £450, of which part can remain at interest; stock and fixtures worth more; well worth seeing.

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Chemists' Transfer Agents & Licensed Valuers,

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Valuations conducted with careful attention to detail.

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Bnyers are advised to place their names on our books (for which no charge is made), stating their requirements, as the best busineses are sold quickly; they by this means get first call upon a suitable concern being placed in our hands, provided we have not one in land at the moment meeting their wauts.

Inventoried Stocktakings for ascertaining profit or other purposes.

TERMS ON APPLICATION.
Telegraphic Address—"Tomtom," Telephone National 3965.

## J. SHACKLADY,

56 Hanover Street,
LIVERPOOL.

### BUSINESSES FOR DISPOSAL

8s. 6d. for 50 words or less; 6d. for every 10 words beyond.

OLTON (Lancashire).—Death cause of sale; valuable centrally-situated Chemists' and Druggists' Business for immediate Disposal; established over 50 years; a number of exceedingly profitable Specialities included in the sale; first-class fittings, stock, &c.; has been in hands of late proprietor over 30 years. Apply, 136 Bradsbawgate, Bolton.

RISTOL (Temple Gate).—To be Sold, through the death of Mr. John Evans, the old-established Chemist's Business, with several valuable Proprietary articles; eleven years' unexpired lease; one of the best positions in Bristol, opposite the joint station. Apply, Evans, Chemist, Temple Gate, Bristol.

CHESHIRE.—A Steady Retail and Dispensing Business, pleasartly situated; few patents; cheap rent, and fairly good house; price about £450. Apply, Mr. Fraser, Chandler, Park Road, Liverpool.

EAST MIDLANDS (Market town).—Old established; Prescriptic ticns oating from 1841; valuable and very popular Proprietaries; a bargain at £225 Full particulars, to principals only, on application to "Specialry" (268,22), Office of this Paper,

EASTERN COUNTIES—Old-established Conntry Business; returns over £1,250, with large profits; low rent; long lease; good house and magnificent garden, greenhouse, &c.; very healthy town, near the sea; shop situate in centre of market-place; price £6.0; full particulars on application; only principals with required capital need apply. "Bargain" (270/2), Office of this Paper.

FOLKESTONE.—Good class Light Retail, Dispensing, and Prescribing Business, at full prices; very few patents sold; net profit £275. low rent, on lease; good position; sole cause of sale old age; valuation of steck and nxtures only required, about £500; personally inspected by us. Apply, Berdoe & Co., Valuers, 35 Je ry Street, Fenchmech Street, E.7.

HERTS.—Chemist's and Druggist's Business for Disposal; good-class trade, Dispensing, Photographic work, Cattle-medicines, Stationary; established many years; returns £1,200 (under management), a good proportion of which is Dispensing; rent £46 for first year, afterwards £40, let off £13; incoming, including goodwill, fixtures, stock, and book-debts, about £750; premises are well appointed and commodious throughout; this business is genuine, affords an excellent opportunity. Apply, Graves, Valuer, Bedford.

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**KENT.**—Genuine Family Retail and Dispensing Business, within easy reach of London; returns nearly £700; rent low on lease; net profit one-third; good prices obtained; every facility given for investigation; price to be arranged. B. C. (270/5), Office of this Paper.

LANCASHIRE.—A good Business for Disposal, suitable for a young man; £500 yearly turnover; present occupier been 17 years; eash purchase £500 wanted. Address letters to X., 10 Colne Road, Brierfield, near Burnley.

EEDS.—Chemist's old-established Mixed Business, main thoroughfare; returns £700; Patents £50 per annum; exceptionally good profits; large house and shop, recently re-fitted; splendid opening for qualified man; reasonable price. Full particulars, W. Huntrods, 198 Kirkstall Road, Leeds.

INCOLNSHIRE.—In a large town; Light Retail, Dispensing, and Agricultural Business; 11 roomed house, warehouses, and large garden; returns last year £1.487; profitable and capable of development; stock and fixtures worth £800; price £900 inclusive. B. D. V. (271/4), Office of this Paper,

ARKET-TOWN.—Retail, Dispensing, and Prescribing Business, returning £1,400, at good prices; capital shop, nicely fitted and well stocked; commodious house, with bath-room, &c.; on lease at moderate rent; net profit quite £300; will accept £100 for goodwill, and valuation of stock and fixtures, or offer; very genuine. "Northern" (271/3), Office of this Paper.

ONMOUTHSHIRE.—Light Retail, Dispensing, and Prescribing Business, in good market town; old-estab'ished, in hands of the same family over 50 years; premises recently rebuilt; shop well fitted and stocked; good house, bath and garden; returns £800; splendid opening for Dentistry; photo of exterior and interior of shop can be had. 'Neuracetin' (268/8), Office of this Paper.

CLDHAM.—The Paradox Pharmaoy for immediate Disposal; owner going abroad next month; price £500, or stock can be reduced to suit buyer. Apply, Thorp, c/o Mrs. Drake, Kuntsford.

PENARTH (Glam.). — Immediate Disposal; good-class Light Retail and Dispensing Business, occupying the best position in Penarth (Glam.); double-fronted, large and commodious premises; established 2 years; average returns £750. For full particulars apply to George David, Esq., 117 St. Mary Street, Oardiff.

SCOTI.AND.—Small Chemist's Business for Sale, in Northern part; satisfactory and increasing returns; a most favourable opportunity for acquiring a really paying business; satisfactory reason for disposal, or would sell the stock and fixtures as they stand. 270/13, Office of this Paper.

S.E. -Branch, with P.O., which pays rent; price £150. Apply, 268/11, Office of this Paper.

SHEFFIELD.—For Disposal, good profitable Mixed Drug Business; old-established; returns £600, capable of great increase; corner shop, good position; rent £35; good house, at present let £19 10s.; owner retiring; introduction given; price £300; well stocked. Apply to Mr. Colton, 104 Addey Street, Sheffield.

SHEFFIELD.—Compact Light Betail Business for Disposal, in pleasant middle-class suburb; established over two years; new fittings, fresh stock; returns £350 (under management), increasing; slight opposition, district increasing; small house, low rent; cash price about £200, or reasonable offer considered. Address, J. Hughes, 35 Mount Pleasant Road, Sheffield.

SHROPSHIRE.—A Bargain; owner retiring from Drug Business.— Retail and Prescribing Business, capable of great development; oldestablished; returns £550, at good prices; no opposition; large industries; growing neighbourhood; house and garden, low rent; splendid chance of this Paper,

SOUTH COAST.—Genuine Light Retail; not relying on visitors; growing neighbourhood; returns over £300; good profits; low rent; good reason for disposal; price £175. Apply, "Neb" (267/27), Office of this Paper.

SURREY.—Market town; small Mixed Business of good class; nice shop; small garden; pleasant situation; returns have exceeded £700; good prices; rent £40; Wine and Spirit agency and Post-office thatched; price £500 cash; very suitable for a branch. 263/24, Office of his Paper.

DISTRICT.—Good-elass Light Retail, Dispensing, and Prescribing Business, established II years; attractive, well-tted shop, heavily stocked; returns between £600 and £700, at excellent rofits; very moderate rent; valuable lease; good warehouse, but no sidence; price 500 guineas. Apply, 266/6, Office of this Paper.

WEST OF ENGLAND.—Retail and Prescribing Business, in principal street of growing seaside town; established over 50 years; oldern well-fitted shop and convenient residence; long lease; very oderate price. 264/39, Office of this Paper.

VOLVERHAMPTON.—To Close an Estate.—Au exceptional opportunity occurs to acquire immediate possession of a well-established siness on very low terms. John B. Anuau, Estate Agent, Wolvermonton.

VORCESTERSHIRE.—Light Country Retail, Dispensing, and Prescribing Business; receipts £800, with excellent profits; condent house, with garden attached; rent only £30; satisfactory reason leaving; price £475. "Mellis" (270/30), Office of this Paper.

ORKSHIRE.—In rising health resort, good Light Country Business for Sale; shop well stocked and fitted; returns £400, at full prices, coasing; rent £13; nearest Ohemist 4 miles; full investigation

A.—Unopposed village Busin'ss, South-West England; Retail, Prescribing, and some Dispensing; returns were £1.100 before scrious illness, which is cause of sale, now £900; rent £25; double fronted shop; 8-roomed house, bath, and garden; price £400 (about one year's profit); easy terms to respectable young man. P. H. A. (271/8), Office of this Paper.

A BARGAIN.—To immediate purchaser, £1,000 (£650 cash) will purchase a Ohemist's and Wine and Spirit (free) Business, including stock, fixtures, fittings, trade-utensils; everything but book-debts; estimated value of stocks, fixtures, &c, about £1200; returns, 1899, about £1,400; reason for ielling, owner gone into other trade; business situated centre main street, unrivalled position; reut £90; sole owner and maker of Hornby's Magic Oordial and Hornby's Musk Lavender (original), for which there is a good wholesale and retail trade: purchaser has option of Branch (spoken for if not required) for £250 (£100 cash); estimated value of stock, &c., £300: returns about £450; rent 16s, per week (inclusive of rates), central position. W. Hornby, Talhot Hotel, Whitby, Yorks; or business premises, 63 Ormonde Street, Jarrow on-Tyne.

FIRST-CLASS Dispensing and Family Retail Business for Sale; old-established; satisfactory reasons for disposal. For price and particulars, apply "Beta" (97/46), Office of this Paper,

A FIRST-CLASS Business for Sale; splendid opportunity for business man; good position and shop recently fitted up. For information and particulars apply to Arthur E. Mason, Chartered Accountant, St. Paul's Chambers, 4 Priory Street, Dudley.

A GENUINE Family Retail and Dispensing Business, about 7 miles out of London, with excellent accommodation, with only moderate opposition; income between £250 and £300; value of stock and fixtures, about £800; will accept £700, or offer; full particulars to applicants bonafiding their inquiries; proprietor able to give trial; reference to wholesale houses or medical men of district. 268/17, Office of this Paper.

FIRST-CLASS Dispensing Business for Disposal, in well-known seaside health-resort; about £1,000 required. "Seaside" (269/13), Offico of this Paper.

FOR Sale, one of the best Businesses in Scotland, doing a Retail and semi-Wholesale trade, the latter principally in proprietary articles; the turnover has been about £3,800 per aunum: the stock, which would be sold at a valuation, would come to about £1,200; to buy the whole business would take about £2,500; the premises could be purchased on favourable terms. or a lease would be granted at a favourable rent. Apply to W. W., Evans, Sons & Co., Liverpool.

MOST prominent position in busy Lancashire manufacturing town; good working class Mixed trade; returns over £1,400; decent house, bath, hot and cold water, w.c.; price £700, or if preferred, hy valuation; applicants must furnish references, as only bona-fide inquiries are invited. Apply, "Volens" (266/11), Office of this Paper.

47 SHIELDS ROAD, NEWCASTLE-ON-TYNE.—Lancelot Arrowsmith, Chemist, doing an excellent business is wishful to Sell, or will take a suitable Partner; the owner will remain for at least 6 months to assist: satisfactory reasons can be given; for reference, Mr. Brumson, Evans, Sons & Oo., Liverpool, Messrs. Wilkinson & Simpson, Newcastle-on-Tyne; a rare opportunity for a young man.

£1,000 -Stock, Fixtures, Goodwill, and Utensils-in-Trade of a going coucern; 30 years under present proprietor, who is retiring; extensive premises, fronting three roads, with gateway; house, seven rooms; shop, double front; hall-entrance, stitting-room, kitchen, three large cellars, stable, and warehouses; suitable for large trade. Apply, Geo. Owen, 164 Soho Road, W. No agents.

# BUSINESSES WANTED

8s. 6d. for 50 words or less: 6d. for every 10 words beyond,

SOUTH OF ENGLAND.—Advertiser, having sold business in North by doctor's orders, wishes to purchase one in South of England; capital £1.050; must have rest, so prefer one either large enough for good Assistant, or small Country concern, with easy hours; Kent, Sussex, Hants, or West of England, J. D. M., 6 Bovill Road, Honor Oak Park, Kent.

WELL-QUALIFIED Gentleman offers premium for reliable information as to an opening for good-class medical practice (not clubs) in good Provincial or Country town; all information will be treated as strictly confidential and the premium will only be paid if the opening be taken up. Catlin (266/16), Office of this Paper.

# APPRENTICESHIPS.

BEDFORD.—Gentlemanly youth wanted, as indoor Apprentice, in a good-class Retail and Dispensing business; must have passed the Preliminary or its equivalent; comfortable home; moderate premium. Address, Anthony & Son, Pharmaceutical Ohemists, 48 High Street, Bedford.

APPRENTICE wanted by practical Pharmacist; Sight-testing, Photography; own Mineral-waters; thorough tuition and com-

# SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

Advertisers whose Announcements appear under this heading can make arrangements to see applicants for the situations at our Offices, by giving a few days' notice to THE PUBLISHER, 42 Cannon Street, E.C.

#### RETAIL.

BATH.—Wanted at once, a qualified Assistant, accustomed to Dispensing; two kept. Apply, stating experience, &c, and salary required (indoor), to Whiston & Co., Chemists, St. James's Square, Bath.

BATH.—Junior or Improver; indoors; two kept. Apply, with photo, stating age, height, experience, and salary required, to W. Bright & Son, 26 Southgate Street, Bath.

BIRMINGHAM.—Junior Assistant required; good wages and commission. Apply, 126 Corporation Street, Birmingham.

BIRMINGHAM —A competent, qualified Assistant (indoors) for first-class Dispensing business. Apply, with full particulars of age, height, and salary required, with references, McIsaac & Co., 165 Hagley Road.

PIRMINGHAM.—Junior or Improver in large Cash business; no Sunday or night duty. Apply, with full particulars as to age, salary (outdoors), and enclose phote, to Hedges & Son, Chemists, Birmingham.

BOSCOMBE.—At once, qualified Assistant, for good-class Dispensing Business. Apply, stating usual particulars and salary required, to F. W. Hornby, Chemist, Boscombe.

BRIGHTON.—Assistant, about 25, accustomed to good-class Dispensing and Retail, wanted August 30; salary £60, indoors; alternate Sunday duty. Apply, with full particulars, reference, and carte, Black & Oo, 21 St. James's Street, Brighton.

**PRIGHTON.**—Assistant, about 23, accustomed to good-class Dispensing and Retail; indoors. State age, height, experience, and carte, to John Miller, 4 Victoria Road, Brighton.

BRIGHTON.—Assistant; indoors; accustomed to good class of business. Apply, stating age, height, salary, and references, enclosing photo if convenient (which will be returned), K. Pears & Son, 16 Western Road, Brunswick Square, Brighton.

BURSLEM—Assistant wanted, qualified, for country Wholesale and Retail; of good experience, and a smart and efficient man at the counter; outdoors; a permanency to agood man; please state age, height, salary required, married or single. 198 Waterloo Road, Burslem.

BURY ST. EDMUNDS.—Locum (unqualified) wanted, outdoors, for a month from Angust 29. Apply, with particulars, Nunn, Hinnell & Clark, Bury St. Edmunds.

CAPE COLONY.—Good Assistant required, at once, well up and reliable in every respect; honesty and sob lety most esseutial; single man preferred; aged about 25; qualified; salary £12 per mouth to commence with, and board and lodging; permanent berth for 3 or 4 years; half expenses paid out. Address "Cape Colony," Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

CAPE COLONY.—Assistant, immediately; must be single, possess the Minor qualification, about 25 years of age, and have had good experience in a Country business; also a good and neat Dispenser; steady and sober habits indispensable; salary, lst year, £140 per annum; 2nd year, £150; 3rd year, £160; sleeping accommodation provided or equivalent (outdoors), but to find own board; second-class passage paid out, conditional on a 3 years' agreement being signed. Address, "Cape," c/o Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

CHINA.—Wanted, by firm doing large business in the Far East, a thoroughly competent Assistant; qualification desirable, but not essential; liberal salary to suitable mau; 4 years' agreement; passage paid both ways. Address, "China," c/o Messrs. Horner & Sons, Mitre Square, E.C.

CITY.—Junior wanted, immediately; outdoors H. N. Davidge, Imperial Buildings, Ludgate Circus, E.C.

CITY.—Outdoors, qualified Assistant as Dispenser, &o.; aged about 24; no Sunday duty. Apply, by letter, with full particulars and salary required, to Vines & Froom, 75 Aldersgate Street, City.

CROYDON.—Wanted, a Junior; outdoors. Apply, giving full particulars, to D. P. Roberts, Drng and Chemical Store, 120 North End.

**DEPTFORD.**—Assistant wanted (outdoors); aged about 24; one used to Store trade, early evening weekly, whole day fortnightly; alternate Sunday duty, 7 to 9; salary and commission. Apply, Brook's Drug Stores, Deptford.

DEWSBURY.—Wanted, a Junior Assistant, for Country business; closed half-day weekly; uo Sunday duty. Apply, stating age, salary, references, &c., and if convenient enclose photo, to J. Day, Chemist, Savile Town, Dewsbury.

EASTBOURNE.—Wanted, Junio: for good Dispensing business; hours moderate; comfortable board and lodging provided away from business. Apply, with full particulars, euclosing carte, to H. R. Browne, Ph. Chemist, Eastbourne, Sussex.

EAST GRINSTEAD. — Wanted, two smart Juniors (indoors) accustomed to good-clast Dispensing, Photographic, and quick countertrade; hours short; also an improver; age, height, salary required, when d'sengagal; phototo be returned. Dixon, Chemist, East Grinstead.

ELLESMERE, SALOP.—An Assistant, immediately, for a country business, with good experience. J. J. Clayton.

LY.-Junior Assistant (outdoors) for Mixed country business. Apply, stating usual particulars and salary required, to Howard, Chemist, Ely.

CLOUCESTER.—Junior wented, at ones, principally for D spensing in Light Dispensing and Photographic business; outdoors; good salary; half-day weekly. Apply, H. Hargreaves, The Cross, Gloncester.

CLOUCESTER.—Wanted, Junior Assistant (ontdoors) for Light Retail and Dispensing business; state age, height, salary, with photo (to be returned), and reference. Apply, Ward, Chemist, Gloucester.

RANTHAM.—Wantel, immediately, a Junior Assistant; country business; short hours; outdoors; time for study. Fisher & Co., Grantham.

CREAT YARMOUTH.—Competent Assistant wanted (indoors), not under 27; qualification not essential; some Photographic experience desirable; haf-holiday weekly, no Suuday or night duty. Send particulars of experience with photo and two references, to Ebbage (late Uwles), Dispensing Chemist, Great Yarmouth. Also vacancy for an Apprentice.

ADFIELD.—Assistant wanted, aged about 21, for Mixed Retail business. Scnd usual particulars of experience, age, salary (indoors), and photo (to be returned), Richardson, Chemist, Hadfield, near Mauchester.

HERTS.—Junior Assistant or Improver wanted by September 3; reasonable hours; no Sunday duty; half-holiday weekly; neer Londou. Particulars and salary required to Hosllar, Chemist, Hoddesdon, Herts.

HULL.—Wanted, Junior Assistant, about 20; short hours, 8 to 7, Thursdays 1; no Sunday duty; live in; Store trade. Apply, with all particulars, Wm Cussons (Lim.), Hull.

TULL.—Wanted, Junior to manage small Branch on Store lires; out-doors; hours 9 A.M. to 9 P.M.; permauency. State age (photo), if abstainer, when disengaged, salary required, J. Redford (Limited), 89 Deringham Street, Huil.

LFORD.—Wanted, immediately, a gentlemanly Assistant, about 23, for Dispeosing and Counter; salary £50. Apply, stating age, height, and references, with photo, to Newton Wright, The Pharmacy, Ilford.

NDIA (Northern).—Wanted, competent Dispenser, and to assist generally in Merchant's business; aged not over 25; salary—1st, £100, 2nd, £120, 3rd, £140, with board and lodging; 3 years' agreement; scoond class passage paid to destination. Apply, with full particulars, to R. L., c/o S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, London.

IVERPOOL.—Qualified Assistant and Junior Assistant about 25, indoors, with good references. S. Stephenson, F.C.S., Pharmaceutical Chemist, 98 Kensington, Liverpool.

LANDUDNO.—Wanted, a qualified Assistant for a permanency; a liberal salary given to a good Counterman. Apply to J. Burton & Sou, Chemists, Llandudno.

ONDON, S. E-Smart, qualified Assistant wanted, about 40. Apply to T. R. Kent, M.P.S., 103 Westminster Bridge Road, S.E.

ONDON, N.E.—Wanted, immediately, 2 trustworthy Assistants, with knowledge of Photography preferred; indoors. Please call, or send photo and terms, to Edmund's Drug Stores, 33 High Street, Kingsland, N.E.

ONDON, S.W.—Wanted, in select Pharmacy, where one is kept, an energetic, gentlemanly Junior seeking permanency; quick, accurate Dispenser, tact for Retail; unexceptionable references; short hours, shop closed on Sundays; comfortable home. Apply, personally, or send carte, age, height, salary required, full particulars, to W. Acfield, the Pharmacy, Surbiton Hill, S.W.

LONDON, S.W.-Junior; outdoors; no Snuday work; half-day weekly. Durbin, High Street, Putney.

LONDON SUBURB (Walthamstow).—Junior or Improver; outdoors; good character indispensable; send photo (to be returned); state salary and full particulars; close Thursdays 2 o'clock; no Sunday duty. Apply, Wm. Fox & Sons, 109 and 111 Bethnal Green Road, London.

ONDON, E.—Wanted, qualified Assistant (outdoors), at once; a quick, energetin man, strictly sober, experienced in modern Cash trate; to a suitable man, 45s, weekly at first, with dinners and teas; undoubted references essential. Galmau Bros., 278 Roman Road, Bow, E.

ONDON SE—Wanted, immediately, a temperate and obliging qualified Chemist, to manage small Chemist's shop State age and salary or salary and commission required, Dr. Hulbert, 64 Brownhill Road, Clefford SE

LONDON.—Wanted, an Assistant, indoor preferred, able to take charge occasionally; 4 to 6 hours daily for study; quick at stock; hours 8 to 10 30; half-day off weekly. Apply, stating salary, aga, and other particulars, to "Chemist," 12 Fonbert's Place, Regent Street, W.

LONDON, W.—Wanted, a Senior Assistant, qualified; indoors; must be a scustomed to a good-class busines. Apply, personally, or send carta, age, height salary required, full particulars, to Meacher & Higgius, Chemists, Orawford Street, Montagu Square, W.

LONDON, S. W.—Competent and reliable Assistant (outdoor), for goodclass Retail and Dispensing business; must be a good counterman. E. Anstic Turner, 280 Fulham Road. LONDON, W.—Qualified Assistant, as Dispenser (indoors). Apply personally, if possible, if by letter give all particulars, to J. G. Sbirley & Son, 2 Westbourne Grove, Bayswater, W.

LONDON, W.—Wanted, immediately, smart Junior; good Stock-keeper and able to Dispense. Apply, with full particulars. Jones & Bowles, 221 High Street, Kensington.

LONDON, W.—Competent qualified Assistant, to manage Branch, to live on premises; must have been used to good-class Dispensing; good salary and commission to suitable man. Apply, with full particulars, M. P. S., 18 Harrow Road, W.

London, to help during absence of principal; easy hours; terms £2 2s. per week. Apply, R., c/o Barron, Harveys & Co., Giltspur Street, London, E.O.

LONDON, E.C.—Smart Junior; time for study; no Suuday duty; outdoors; preference to Englishman. Northway & Co., 27 Great Tower Street, Londou, E.C.

LONDON, S.W.—Wanted, at once, smart Junior; indoors; comfortable home; alternate Sunday duty. Apply, with particulars, or personally, to Lovely & Co., Streatham Common, S.W.

ONDON, S.W. — 105 Victoria Street; unqualified Assistant as Counterman; outdoors; short hours. Apply, giving full particulars, F. M., Box 2502, Sell's Advertising Offices, Fleet Street, Loudon.

ONDON, S.W.—Assistant wanted; speaking French and German preferred. Heppell, 35 Haymarket, S.W.

LONDON.—Unqualified Assistant required early; good salary and moderate bours. State age and past experience to "Ouprum" (271/2), Office of this Paper.

ONDON.—Qualified Assistant wanted, in four or five weeks' time, capable of taking charge occasionally; good salary and commission offered to an energetic man, but good references required; letters not answered in 3 days respectfully declined. Apply, in confidence, with age, salary required, and particulars of two last situations, to "Phenacetin" (270/7), Office of this Paper.

ONDON, S.W.—Junior Assistant wauted, at once, for Counter; bours 9 to 7. Apply, by letter to "Chemist," 28 Haymarket, S.W.

ARGATE.—Junior Assistant in old-established business, Disrensing and ordinary Retail, Sept. 10th (about). State age, experience, beight, and salary (in or out doors), with phote, to Wootton & Son, Chemists, Margate.

ERTHYR TIDFIL.—Junior or Improver; aged about 20; indoor. Apply, stating height, experience, and salary required, to Rees Thomas & Son, Merthyr Tyddil, Glam,

IDLANDS.—Brauch Manager required, for General routine, with Teeth-extracting and a little Photo goods. Please apply, with particulars of last situation, references, and salary required (house and gas free), to 267/20, Office of this Paper.

NORWICH.—Junior wanted (outdoors). Apply, stating age, experience, reference, and salary, to G. Betts, Pharmaceutical Chemist, 25 The Walk, Norwich.

NORWICH.—Outdoor Assistant, not under 25; good Prescriber essential; half-day weekly; practically no Sunday duty; two kept; required at once. Send photo, two last references and salary, to Robinson & Oo., Orford Hill, Norwich.

NORWICH.—Junior or Improver; outdoors; quick and accurate Dispenser; good counterman. Apply, statiog age, height, reference, salary, and enclosing photo, to F. G. Holoran, 128 Dereham Road, Norwich.

OXFORD.—Dispenser; qualified: outdoor. State salary required, references, and usual particulars, to Managing Director, Oxford Drug Company (Lim.), Oxford.

**PLYMOUTH.**—Wanted, a qualified man to take sole charge; one requiring permanency and able to Extract preferred; outdoors, but meals mostly provided on premises. State salary, &c., and enclose photo (to be returned), 263/21, Office of this Paper.

READING.—Wanted, an Assistant, by Sept. 1st. Apply to Joues, Ohemist, Reading.

SHEFFIELD.—Wanted, a Junior Assistant, outdoors. State experience and salary required, G. T. W. Newsholme, Pharmaceutical Ohemist, 27 High Street, Sheffield.

SOUTH AFRICA.—Assistants open to accept situations in South Africa, should apply to Lennon, Limited, 75 Leadenball Street, E.C., who frequently hear of vacancies, being London Agents for 18 Retail Businessts out there.

SOUTH AFRICA (Healthy Town).—Assistant required, for early part of March: must be thoroughly reliable, competent, and preference given to one with Wholesale experience; steady and sober habits are most essential; aged about 23; single, and of good health; Minor qualification; salary, £12 Its. per month first year, £13 10s, second year, £15 third year, payable mouthly; without board, and outdoors; second-class [a. sage paid out, with personal expenses on board; 3 years' agreement, address, "South Africa," Messrs, Evans, Lescher & Webb, 60 Bartholomew lose, London, E.O.

T. LEONARDS ON-SEA.—Junior Assistant wanted (indoors), for Light Retail and Dispensing. State age, height, references, and

SITTINGBOURNE.—Junior or Improver wanted; indoors; no Sunday duty; close 2 o'clock Wednesdays; time for study if required; also a Locum for end of August or beginning of September, Apply, with usual particulars, to H. S. Maundrell, 2 & 4 King Street, Milton, Sitting bourne.

**SOUTHAMPTON.**—Lady Dispeuser wanted as Locum for about a month. State terms and full particulars to A. L. M., 111 Millbrook Road, Southampton.

TORQUAY.—Oompetent Assistant required, for high-class Cash business; must be a good Counterman, obliging, and of good address; practical knowledge of Photographic trade desirable. Kindly give in first letter full particulars of experience, age, height, salary (indoors), and enclose photo, Frederick March, 34 Fleet Street, Torquay.

TOTTENHAM,—Assistant; good address, used to quick trade; qualification not necessary, knowledge of Photography essential; good salary, indoors. Hobson, Ph.O., 551 High Road, Tottenham, N.

TURNHAM GREEN.—Wanted, energetic young man to Manage small neglected Branch business; salary and commission. Apply, Wilson, Chemist, Turnham Green, W.

WELLINGTON (Shropshire).—Wanted, smart Assistant, at once, for Country business; indoors; liberal salary. Ison & Sons (Limited), Wellington, Sbropshire.

WEST-END.—Outdoors; Junior Assistant, aged 22 to 24, baving knowledge of good-class London or South-coast trade, is required for October 1-t; qualified preferred, but an unqualified man (well recommended by his last employer) uot objected to. Apply, with full particulars as to age, beight, experience, to 270/26, Office of this Paper.

WESTON-SUPER-MARE.—Wanted, a Junior; indoors; 2 kept; accustomed to good-class Retail and Dispensing business. State age, height, reference, salary, and enclose photo, to Edwin Norman, Pharmacist, 35 High Street, Weston-super-Mare.

WIMBLEDON.—Wanted, an Assistant used to a good class business, well up in Dispensing, with a knowledge of Photography. Apply, personally if possible, if unable to call usual particulars, W. Bowden, Chemist, 62 Hill Road, Wimbledon.

WINTON (Bournemouth).—Active Junior wanted, aged about 19 to 22; indoors; total abstainer. State experience bad and salary required, enclose photo (to be returned), to Oumber, Obemist, Winton, near Bournemouth.

WOLVERHAMPTON.—Juuior Assistant, in a good-class Light Retail business; outdoors; weekly balf-holiday; no Sunday duty. Please apply to Phillips, Pharmacist, Lichfield Street, Wolverhampton.

YORKSHIRE.—Wanted, competent Assistant, in Mixed Country business; 30s. (outdoors); must have good references; permanent post. G. Myers & Oo., Welton, Brough, Yorks.

A QUALIFIED Assistant, in the West-end, where 3 are kept; indoors; full particulars of previous engagements, photo, and salary. Address, A. B. O. (153/22), Office of this Paper.

A T once, on South Ooast, in first-class Dispensing business, a qualified Senior Assistant, aged about 25. State full particulars of experience, salary required, height, when disengaged, and enclose photo, to F., c/o Maw, Son & Thompson, Aldersgate Street, E.C.

A T once, Junior, unqualified, about 22; outdoors. Write or call, "Chemist," 144 Stroud Green Road, Finsbury Park.

**DISPENSER.**—Wanted, immediately, a Surgery Dispenser, between the bours of 4 and 9.30 P.M. Apply, "Banavie," 531 Manchester Road, Oubit Town, E.

MMEDIATE vacancy for a really smart, capable Assistant; one accustomed to take charge preferred; must be energetic and persevering. Apply, before 1 or after 6 P.M., Mr. Goode, Bell & Co., 58 York Road, Waterloo Station, S E.

UNIOR, qualified, for Light Retail and Dispensing business. Full particulars as to experience, salary, &c., to O. J. Palmer, Chemist, 20 King Street, Twickenbam.

JUNIOR, for Light Retail and Dispensing business (suburbau). Apply, with full particulars, reference, &c., 155 High Street, Stoke Newington, N.

LOCUM TENENS wanted immediately; hours 12 to 4 P.M. Apply, by letter, "Dispenser," Finsbury Dispensary, Brewer Street, Goswell Road, E.O.

ANAGER for Country Branch; in or out doors; to a smart young qualified man an interest will be given in the business, and succession on easy terms may be arranged; used to Store trade preferred; good references absolutely necessary; a golden opportunity for a good man with little or no capital to start, owner being in a large way in a town some distance away. "Immediate" (268/30), Office of this Paper.

MANAGER for Branch; must be a good Counter Salesman and Prescriber otherwise not apply; outdoors. Boutall, 52 Marchmont Street, Russell Square, W.C.

OUTDOORS; good Country business; no Sunday duty; must be reliable and trustworthy; 20 to 23 years of age. State experience and salary required, 266/27, Office of this Paper.

PARKE'S DRUG STORES (LIMITED), have vacancies for two Junior Assistants (outdoors). Apply, personally or by letter, at 173 High Street, Camden Town, N.W.

# SITUATIONS OPEN—cont.

#### RETAIL-continued.

QUALIFIED Assistant wanted, for evenings only, in return for lodging and part hoard. Apply, 266/40, Office of this Paper.

QUALIFIED Dispenser wauted in the City; no Sunday duty or night work. Apply, hy letter, stating age and salary required (outdoors), to "Minor," c/o Street's Ageucy, 30 Cornhill, E.C.

QUALIFIED Manager required; must be thoroughly up-to-date and enterprising, and have had at least 6 years' experience in the Store trade; a liberal salary and commission on the profits will be given to a suitable man. Apply, with full particulars, to "Gentian" (157/64), Office of this Paper.

**UALIFIED** Assistant required, by London firm of Chemists, as soon as possible; one used to a good Cash husiness preferred. State past experience, references, and salary required, to "Boracis" (271/2), Office of this Paper.

SMART Junior; outdoors; ahout 21 to 25; S.W. district; liberal salary and commission; must be well up in quick Cash husiness. Apply, Y. (271/1), Office of this Paper.

UNQUALIFIED Senior, with some knowledge of Photography, for seaside town on South Coast; not over 30 years of age; single; indoors. State age, height, experience, &c., photo if possible, "Senior," c/o Barron Harveys, Giltspur Street, E.C.

ANTED, an Assistant, ahout 25, not necessarily qualified (indoors); also Junior, 19 or 20 (indoors). Apply, stating full particulars, W. Tudor, Chemist, Brecon.

WANTED, Dispenser for Easthourne (unqualified); must be smart and accurate. Apply, by letter, giving full particulars of past experience, references, age, salary required, &c., to George C. Dusart, 135 Queen's Road, Brighton.

**WANTED**, an Assistant, for S.E. district; outdoors; half-holiday weekly. Please reply, with full particulars, "Drugs" (271/6), Office of this Paper.

WANTED, Turnover Apprentice, 3 or 4 years' experience. Address, giving full particulars and references, to A. B. C. (268/25), Office of this Paper.

WANTED, at once, Senior Assistant, outdoors, qualified, to take charge of first-class Cash husiness in S.W. suhurh; liberal salary to suitable smart man. Apply, X. (271/1), Office of this Paper.

ANTED, young qualified man as Branch Manager; salary £120 per annum (outdoors) to commence. Please give age, when disengaged, and one or two recent references, "Veritas" (268/31), Office of this Paper.

#### BATH ROYAL UNITED HOSPITAL.

WANTED, at once, a qualified Assistant Dispenser (Male); salary £70 per annum. Apply, with three recent testimonials, to the Secretary.

# CIVIL SERVICE COMMISSION. FORTHCOMING EXAMINATION.

UNIOR Assistant, in the department of the War Office Chemist, at Woolwich (20 to 25), 30th August: the date specified is the latest at which applications can be received; they must be made on forms to be obtained, with particulars, from the Secretary, Civil Service Commission, London, S.W.

#### WHOLESALE.

ANCHESTER.—Wanted, for a Manufactory of Food Stuffs, a young woman, with experience, as Analytical and practical Chemist. Particulars to "Chemist," c/o John Heywood, Advertising Department, Deansgate, Manchester.

FLETCHER, FLETCHER & CO. (LIM.), will have vacancies early in September for one or two additional Representatives in the Midlands, Yorkshire, and Wales; applicants must he well trained and thoroughly competent, know their ground intimately; not over 30; unmarried, and with highest personal references; falary, expenses, and commission.

LADY Ohemist, with good experience wanted, for a Wholesale and Manufacturing house: Major qualification preferred. Address, with full particulars, to "Chemist," c/o Mather & Orowther (Limited), 10 to 12 New Bridge Street, E.C.

TINCTURE-ROOM.—Strong youth wanted, about 17, with some experience. Write full particulars and wages required, to T. R. S., 112 Sandmere Road, Clapham, S.W.

TRAVELLERS wanted, resident in Birmingham, Bradford, Leeds, Bristol, Cardiff, Newport. Leicester, Nottingham, Derby. Liverpool. Manchester, Sheffield, Plymouth, Portsmouth, and Southampton, to call upon Grocers, Chemists, Restaurants, and Refreshment-rooms, to sell a popular article; salary and commission; engagement to commence ahout middle of September. Write, W. N. W., c/o Street's Agency, 30 Cornhill.

WANTED, immediately, a good Wet Man, who has had experience in a London or good Provincial Drug House; must have good references. Application by letter, stating age, experience, salary required, to W. C. H., care of Wright, Layman & Unney (Lim.), Southwark, London,

MANTED.—A competent Pharmaeist, with some capacity for management, is required in a Wholesale bouse; Major qualification essential; only those who have had first class experience (preferably Wholesale and Retail), and who are capable husiness men, need apply; very full particulars must be given in the first application. Apply, "Major," c/o Dixou's Advertising Offices, 195 Oxford Street, W.

WANTED, Analytical Assistant in Pharmaceutical and Chemical Laboratories; must have had thorough training with first-class house. Apply, with full particulars, Philip Harris & Co. (Limited), Edmund Street, Birmingham.

WET Counterman.—Wanted, by a Provincial firm of Wholesale Druggists, a First-hand Warehouseman; must be energetic, accurate, and thoroughly experienced. Apply, with full particulars, "Cascara" (268/29), Office of this Paper.

WET COUNTERMAN.—A smart and experienced man for the Wet Counter required, in a London house, Write, stating age, experience, and salary required, to 158/29, Office of this Paper.

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QUALIFIED; 30; outdoors; London district. 269/21, Office of this Paper.

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LOCUM-TENENS.— Charlesworth, M.P.S., Ardilaun, Frizinghall. Disengaged August 18.

COUNTERMAN; aged 29; height 6 ft; good refs. Michell, 6 Werter Road, Putney.

UNIOR; 20; tall; good Dispenser, Extractor; Coast preferred. Tremlett, Esplanade, Ryde.

To complete Apprenticeship (indoors 2 years); premium no objection. 267/30, Office of this Paper.

A SSISTANT; 25; 5ft. 10 in.; references; disengaged. Smith, 2 The Uplauds, Campfields, Truro.

DISPENSER; outdoors; 23; 8 years' experience; disengaged. S., 204 Rye Lane, Peckham, S.E.

OCUM; disengaged September 1; unqualified; 25; terms moderate. Z. (268/13), Office of this Paper.

PART-TIME; abstainer; 23; London; evenings preferred. Johnson, 44 Stanhope Street, Abergavenny.

ADY DISPENSER (qualified), desires engagement. K., 5 Falr-fax Road, South Hampstead, Loudon.

JUNIOR: 22; disengaged; Manchester or Liverpool preferrel. "Statim," 24 Laurel Grove, Southport.

OCUM, Branch Manager; Minor; experienced; disengaged. "Lignum,' 9 Blanshatd Street, Manchester.

**CUM**; disengaged August 25 for week; references; experienced; steady. "Chemist," Haddenham, Cambs.

MANAGER; tall; qualified; 27; good experience and references; disengaged. 268/38, Office of this Paper.

\$2 weekly, indoors, and return fare; disengaged 24th. "Locumtenens," Cordeus, Chemist, Pulborough.

MANAGER or Locum; 40; qualified; experienced, high-class business. "Chemicus," Parkinson, Atherstone.

OCUM; qualified; 36; highest references; disengaged after August 27th. Hodgkinson, 16 Carlton Street, Halifax.

OCUM; disengaged for week or fortnight; qualified; experienced; aged 35. 38 Murillo Road, High Road, Lee, S.E.

DISPENSER (Lady), Apothecaries' Hall certificate, seeks engagement. "Ward," Scotts Hill, Southminster, Essex.

A SSISTANT; 27; married; unqualified; permanency; disengaged August 23. Smith, 140 Victoria Road, Aldershot.

FRANCIS & CO, Chemists, Wrexham, can strongly recommend a Junior; tall; ag-d 21; full particulars ou application.

ANAGER or Senior; 32; outdoors; experienced; good refs. m. P. S., 35 Sp. John's Park, U, per Holloway, London.

QUALIFIED (28), desires outdoors in London or suburb; or Managership, with rooms. T. D., 3 Walcot Square, S.E.

MANAGER; London (suhurbs); married; qualified; experienced; references. "Hordeum" (267/26), Office of this Paper.

SENIOR or Manager; qualified; 10 years' experience; good Dispenser; aged 28. Apply, H. A., 3 High Street, Wainfiet.

JUNIOR; 23; 5 ft. 8 in.; 5 years' exocrience; disengaged September 11; outdoors. "Phenazonum" (267/17), Office of this Paper.

MPROVER or Junior; 18; high-elass Store experience; Loudon and country. Particulars, "Eau," 15 Wolsely Road, Ashford, Kent.

LADY DISPENSER (trained nurse) requires situation as Dispenser, Hospital or with Medical man. 60 St. George's Road, Pimlico.

LOCUM; 24 years' good references: experienced; abstainer; disengaged 22nd. Address R. Haslam, 329 Bury Road, Tonge, Bolton.

FOR October; qualified; 23; permanency in first-class Country husiness; outdoor; highest references. Apply, 265/11, Office of this Paper.

AS Assistant; unqualified; aged 30; disengaged September; nearly 8 years present situation. "Rhei," Reform Club, Chapel Street, Preston.

QUALIFIED Ohemist, as Counterman in pushing husiness; aged 22; 5 years' experience; tall; good references. Whiting, Oredenhill, Hereford.

SURGEON'S Dispenser, 14 years' experience, requires engagement, end of September; good references. "Dispenser" (268/4), Office of this Paper.

SENIOR or Branch Manager; Extractor, Prescriber; unqualified; 18 years' varied experience; good references. J., 12 Cross Street, Wrexham.

QUALIFIED; Senior or Manager; aged 24; height 5ft, 9 in; London and Harrogate experience. D. Dawson, 26 Cowlersley Lanc, Milnshridge, Huddersfield.

EVENING Work, as Dispenser to Surgeon or to relieve Chemist on few evenings weekly; London only; qualified. "Student" (267/1), Office of this Paper.

TEMPORARY engagement desired; Minor certificate; aged 26; abstainer; hospital preferred; London and provincial experience. Burnell, Appledorc, Devon.

OCUM-TENENS; fully qualified; Hospital or Surgeon; London; 34; thoroughly trustworthy. "Chemist," 27 Queen's Parade, Merton Road, Lower Tooting, S.W.

COMPETENT Assistant; 22: good experience Dispensing, Retail, Photographic; London preferred. Mulliuger, c/o Fisher & Co., Chemists, Leamington Spa.

ANAGER, disengaged September 1 to 15, is open to an engagement as Locum; country, South or East Coast preferred. F. C. C., 19 King's Road, Chelsea, S.W.

ANAGER, small husiness, or Dispenser; qualified; middle-aged; varied experience; disengaged; moderate salary. "Minor," IC Marence Place, Docks, Cardiff.

Obemist," 45 New Walk, Leicester.

A SSISTANT or Manager; Hall qualification; 27; outdoors; 12 years' London and provincial experience; disengaged August 25. vans, 7 Lewis Terrace, Pontypridd.

ANAGER; London preferred; qualified; Chemist's son; excellent London and provincial experience; good Prescriber, Photography. Dermatol" (156/40), Office of this Paper.

THARMACEUTICAL Chemist (29) will shortly he at liberty to take up management of large concern. Full particulars on applition to "Argol" (265/9), Office of this Paper.

SSISTANT; competent; ontdoors; good Counterman, Dispenser, Prescriber, and Extractor; take charge; disengaged; aged 31, qualified. "D.," 25 Strathnairn Street, Cardiff.

ANAGER of Department or Branch; first-class London experience; Photography and Optics; disengaged end of September; aged 33; ricd. "Kodak," 15 St. Margaret's Street, Canterbury.

ANTED, position as Manager or Buyer; qualified; good varied experience; aged 29; present situation nearly 5 years; at liberty o month from any fixed date. 268/37, Office of this Paper.

NGAGEMENT wanted by Junior, beginning of September, in a

PRANCH Manager; qualified; 45: married, no family; long and varied experience in London and provinces; good Dispenser and Prescriber; thoroughly reliable and trustworthy; disengaged. "Nemo," 30 Merchant Street, Bulwell, Nottingham.

UALIFIED Chem'st, married, aged 36, requires Managership or simi ar appointment; Hull district or Lincolnshire; in addition to Family Fetail and Dispensing, used to manufacture of Aérated Waters, Agricultural trade, and local Wholesale; excellent references; present appointment Branch Manager, Address, "Permanency," c/o Brighouse, Chemist, Suffolk Street, Newland, Hull.

#### WHOLESALE.

CHEMIST - TRAVELLER; commission or agency. "Yorks" (264/29), Office of this Paper.

DRUGS.—Wanted, by gentleman, position as Market Clerk in Import Merehants. B., 49 Gloucester Road, Regent's Park.

OHN J. BRYANT seeks permanency in London house; varied Manufacturing and Analytical experience. 40 Essex Street, Marc Street, N.E.

A GRICULTURAL CHEMISTS—As Warehouseman and Packer; can assist in shop; 14 years' experience; aged 27. "Warehouse" (268/6), Office of this Paper.

To make and superintend Packing Proprietaries and Toilet-preparations; Wholesale; Stores; qualified. B., 54 Grosvenor Road, Jesmond, Newcastle-on-Tyne.

Young man requires situation in provinces; good general knowledge of Lahoratory work; 4 years' experience in Extracts, Stills, &c. Hill, 49 Turnpike Lanc, Hornsey, N.

REPRESENTATIVE, extensively connected with Chemists in Midlands, is desirous of taking up good Specialities. Particulars to "Druggist," 14 Broadgate, Coventry.

ADVERTISER, leaving September for Canada, is open to accept or represent on commission any suitable marketable Specialities. Apply at once to Thorp, c/o Mrs. Drake, Knutsford.

GENTLEMAN, of varied experience, seeks position of trust; smart business man: accustomed to control of hands; excellent character; aged 27. "Qualified" (268/33), Office of this Paper.

CHEMIST, aged 30, energetic and fond of business, desires responsible position in Wholesale, where opportunities for advancement would occur. W. (267/16), Office of this Paper.

WANTED, hy qualified and experienced man, situation as Traveller, or good commissions accepted; character and testimonials excellent. Address, "Formalin" (265/40), Office of this Paper.

# MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

WE are willing to Advertise in that List of yours provided you quote us a reasonable rate. Daisy Ltd., Mammoth Works, Leeds.

SULPHUR-TABLETS and Sulphur and Sarsaparilla Tahlets, in 7-lh. hinged and labelled hoxes; 2 cwt. 33s. cwt., carriage paid; 1 cwt. 34s., 2 cwt. 18s., 28 lbs. 10s., carriage forward, prices and show-cards free; Sticky Fly-papers, your own name, 5s. gross, 5-gross lots carriage paid; Disinfecting Shells, 4s. 3d. gross, 5-gross lots £1. Christy & Oo. (late White), Chemist, Leicester.

CHEMISTS' SHOPFITTINGS. — 12 ft. run mahogany drugdrawers, glass lahels, shelving, cornice and lockers complete, 10-ft. scrving-counter, mahogany top, 6-ft. dispensing-screen and counter, 8-ft. mahogany wall-case, desk and case, £39 the lot; bevelled-plate mirror in black frame, 4,  $63 \times 18$ , 20s. each; cheapest house for glass shelves, windowfittings, lamps. Treble & Oo, Complete Shop Fitters, Rectory Works, Reudlesham Road, Clapton, London, N.E.

complete shopfittings.—12-foot Wall-fitting, with 60 malogany-fronted drawers with bevelled-edged glass labels and cutglass knobs, complete with lockers, pilasters, shelving, and corniee; 10-foot solid Malogany-top Counter, with nest of drawers at back, including till and label drawers; 6-foot hevelled-edged Mirror-centre Dispensing-screen, with counter under; Perfume-case and Desk; Wall-showcase with recess and shelving complete; all in excellent condition and suitable for beginner or branch; price £35. Philip Josephs & Son, 54 and 93 Old Street, London, E.O.

#### CUCUMBER AND GLYCERINE,

ROUSE'S Quoumher Paste is the hest for preparing Quoumher Emulsion Formulæ and lahels free with each jar; ½ lh. (for 3 lhs. emulsion), 2s. 3d.; 1 lb., 4s. 3d.; 7 lhs., 25s., post free. Rouse, 61 Charlotte Street, London, W.

N.B. -Cucumbers actually enter into the composition of this article.

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Set of 11 pairs Maw's forceps, new, 30s. B. Smith, 2 Anerley Grove, Crystal Palace, Sydenham, S.E.

#### BOOKS AND PERIODICALS.

Bentley's "Botany"; Fowne's "Chemistry"; Dr. Gregory's "Encyclopædia." 25 Clive Street, Tunstall, Staffs.

#### DRUGS AND CHEMICALS.

- Pulv. acid. citric., B.P. '85, 1s. 4d. per lb. by 7 lbs. or over. W. LEAN, Bengeworth, Evesham.
- Overstocked.—Vin. cinchon. Malaga (very fine, 12 years old guaranteed); what offers for 10 gallons? samples 2s. 9d. lb., post free. G. B. & Oo. (Lim.), 4 King Street, Manchester.

#### FORMULÆ.

- Embroeation.—Eggs, acid, turps, &c., creamy and inseparable; no mixer needed; price 2s. 6d. 266/5, Office of this Paper.
- Straw-hat polish, black lacquer, and furniture-varnish; 10 gals. fluished in 1 hour; no shaking: 5s. each, 12s. 6d. for the sct, including full instructions. 266/5, Office of this Paper.

## OPTICAL AND PHOTOGRAPHIC.

- 50s. or offer, No. 4 Bullet Kodak, 5 by 4, two dark slides ; used twice ; cost £3 10s. 263/22, Office of this Paper.
- What offers for Vive stereo camera and carrying-case; Lancaster's halfplate Instantograph, no tripod? 76 Mill Street, Macelesfield.
- Swallow hand camera; carries 12 sheaths; good condition; cost £2 2s. 6d., will accept 10s. 6d., or best offer. HAWORTH, 84 Lister Lane, Halifax.
- Lancaster's half-plate instantograph, with extra R.R. lens, 3 double backs, tripod and 'case'; good condition; £4 4s., or offer. W., 33 St. Mary's Road, Bradford.

#### PROPRIETARY ARTICLES.

- What offers for 10 Armoun's nutrient wine; 8 Phillips's palatable codliver oil; 20 Oaffyn's liquor-carnis, 2s.; 12 ditto, 3s. 6d. Key, Chemist, Pontypridd.
- The highest price for doz.-case Angier's petroleum emulsion, 2s. 9d.; also 5 2. oz. bottles Bishop's effervescent piperazin; the lot sent carriage paid. WM. GARROW, Keith.
- Overstocked.—24 doz. 9d. Sand's liver seeds, 7s. per doz.; 12 doz. 6d.

  Adam's ext. herbs, 2s. 9d. per doz.; 6 doz. 6d. Bond's marking.ink,
  1s. 11d. per doz.; 3 doz. 1s. ditto, 3s. 11d. per doz.; 6 doz. 6d. Sansom's
  nursery-oil, 3s. 9d. per doz.; 6 doz. 1s. 1½d. M. F. Thompson's cornplaster, 6s. per doz.; 2½ doz. 2s. 9d. Nurse Powell's pills, 17s. per doz.;
  6 doz. 1s. Barrow-Evans's hair-restorer, 5s. 3d. per doz.; 6 doz. 9d.
  Tibble's vi-cocoa, 6s. 9d. per doz.; 2 cwt. Price's wax-tapers, 8d. per
  lb. WALKER & Co., Failsworth, near Manchester.
- Overstocked; best offers to clear,—2 2s. 6d. Rhine violets; 36 6d. Diamond dyes; 36 3d. ditto; 3 2s. and 12 1s. Munyon's; 3 cach 1s. 1½d., 2s. 9d., 4s. 6d. Vitæ Oræ; 1 3s. 6d. Crinicure; 1 each 5s. and 10s. 6d. Arema vaporiser; 10 1s. 9d. Arema inhalants; 2 4s. Bengue's ethyl chloride; 5 1s. wind plasters; 3 7½d. Allecck's corn; 2 1s. 1½d. ditto buuiou-plasters; 3 1s. 1½d. Beetham's corn-plasters; 6 6d., 3 1s. Lancereolin; mineral waters: 2 Franz Joseph, 2 Levico, 13 Rublnat, 10 Vichy, 5 Friedrichshall; all good condition. Middler, 252 Gorgie Road, Ediuburgh.

#### SHARES.

- Five Camwal preference shares, at a slight premium. 269/16, Office of this Paper.
- Hirst, Brooke & Hirst (Lim.), 5% pref. shares; offers requested. E. H. Judge, Bourue, Lines.
- 53 Camwal ordinary, 23s. 6d.; 22 preference, 24s.; will divide. L., 20 Tressillian Road, Brockley, S.E.
- 20 £1 6 per-ceut. preference shares in Webb & Ellen (Limited), grocers and provision merchauts in London and Woolwich. To A. B. C., 113 Sydenham Road, S.E.

#### SHOP FITTINGS.

- Scales, brass pillar, mahogany box, drawer, good condition, 15s. Humble, Chemist, Brentford.
- Counters, shelving, stock and fittings of chemist's shop. Offers, Free-Man, Chemist, Balham.
- Fittings, carboys, show-cases, drawers of chemist's shop, lamp, and oiltanks; write for list. Key, Chemist, Pontypridd.
- What offers? 24 stock-bottles, black, about 2 gals.; 60 to 80 stoppered bottles, wide and narrow mouth, different sizes. J. K. Kempthorne, Surgeon, 65 Old Street, E.C.
- Handsome glass-case-fronted counters and the stock and fittings (for removal) of chemist's shop, at Morris's, 331 West Green Road (near West Green Station), Loudon, N.

#### MISCELLANEOUS.

- Vermilion, genuiue pale, 20 lbs., 2s. 6d. lb.; 3 fir-tree oil, 1s. 6d., 1 ditto, 2s. 6d.; 1 fir-wool oil, 2s. 9d.; half face-value. Dennis, Chemist, Louth.
- Chemical-apparatus for disposal: Maw's hand tablet-machine; gasogene, 3-pint; medical books; 8 Pcar's soap-balls (glass); offers wanted. Dunning, Ohemist, Ventnor.
- Seven 20-oz. bottles opoponax: 8 20-oz. bottles white rose; 8 20 oz. bottles lily of the valley: 7 20-oz. bottles Peau d'Espagne (Corbyn's); what offers? 270/40, Office of this Paper.
- Overstocked.—Morph, acet., 4 oz.; 1½ gross 1s. 1½d. Daisy headachecure; half and quarter Ilford plates (vari.us) and papers; spougestand, as fig 1,633, Ayrton & Saunders' list; reasonable offers for all or part. SEWELL, Chemist, Goole.

#### WANTED.

- Chemist's gilded sign-mortar. X. (268/3), Office of this Paper.
- Mahogany beut-glass counter-case, 5 ft. long, good condition. Holland, Ohemist, Lutterworth.
- Old electric lamps and scrap platinum. P. Rowsell, 9 Derwent Grove, East Dulwich, London.
- A circular-fronted dental showcase, not exceeding 20 inches diameter.

  KEY, Chemist, Pontypridd.
- "The Chemist and Druggist," September 2, 1899. 6d. offered for perfect copies sent flat to S. B., Office of this Paper.
- "The Chemist and Druggist," posted weekly. State terms, "DIS-PENSER," Friendly Societies' Surgery, Foregate Street, Worcester.
- Camwal ordinary and half preference shares; state quantity and lowest price; quick transfer. T. Wallington, 172A Albert Road, Aston, Birmingham.
- Shares.—11 Camwals, iu exchange for an English 18-carat gold chronograph, fine timekeeper, cost £30, cases weigh 3 oz. troy minus 36 grains. E. Maish, Chemist, Bristol.
- Newth's "Chemistry": Lowson's "Botany"; Southall's "Materia Medica"; Ince's 'Latin Grammar"; "Selecta & Prescriptis"; "Art of Dispeusing." Please state lowest price, S. A. Sheard, c/o Chantry Chemist, Totland Bay, I.W.
- "Journals" of Chemical Society, Chemical Industry, Chemical News Scientific and Natural History Books and Journals: Analyst, Philo sophical Magazine, Banking Journals and Statistical Journals. R. HALI Chapel Place, Tunbridge Wells.

awares.



# ▲ Weekly Journal of Pharmacy and the Drug-trade. ESTABLISHED 1859.

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#### NEW BOOKS.

A NEW edition of our "Veterinary Counter Practice" is now printing, and will be in the hands of the binders soon. It has been thoroughly revised by a competent veterinary surgeon, and brought well up to date. It is a better, bigger, and brighter book than before, but the price will remain the same, 3s. 6d., or by post, 3s. 10d.

brought well up to date. It is a better, bigger, and brighter book than before, but the price will remain the same, 3s. 6d., or by post, 3s. 10d.

The new edition of "The Art of Dispensing" is also being printed. It will contain 500 pages, so that it is almost twice the size of previous editions. The new edition is encyclopædic in its comprehensiveness of difficulties which occur at the dispensing-counter. It has been practically rewritten from cover to cover, and at least three-fourths of the matter is new. The Editor has taken special pains to increase the educational value of the book, so as to make it even more useful to students of pharmacy. It will be ready in time for the next school session, and we are booking orders for it in advance at 6s. post free.

# Summary.

A Barch of analysts' reports are printed on p. 302.

IMPURE ICE-CREAM has laid low several Salford children (p. 303).

FURTHER EXPERIENCES of Civil compounders in South Africa are given on p. 306.

A YOUNG APOTHERER tells how chemists' shops are inspected in Germany (p. 327).

THE ELEPHANTIASIS-PARASITE has been found in the proboscis of the mosquito (p. 320).

Mr. Theodore Howard is figured by Mr. Fred Reynolds this week as the Bark Bird (p. 314).

THE BATTERSEA CORONER denounces "quack remedies" in the usual coronerial manner (p. 303).

"Xrayser" bas something to say on pharmacopæial research and on pharmacy as a profession (p. 315).

Mr. Henniker-Heaton has been giving the Postmaster-General his ideas of an ideal Post Office (p. 320).

THE SCOTCH CRISIS and the new Pharmacy Bill are the two political subjects dealt with in interesting letters on p. 324.

Russia has found it necessary to increase the duties on some of

her imports, owing to the disturbances Chinawards (p. 307).

THE NEW REGULATIONS for the use of duty-free alcohol, which are to come in force in Germany in October, are noted on p. 320.

AN ARTICLE on the universality of arsenical contamination, on p. 322, shows that we may often take small doses of arsenic un-

A Manufacturer has been fined 15% and costs at Tamworth for selling adulterated milk of sulphur and camphorated oil (p. 310).

Mr. Arthur Albright, the first manufacturer of phosphorus on a large scale, has left large legacies to Birmingham charities (p. 303).

"PHARMACEUTICAL CAMERIST" supplies some useful notes, and mentions some new photographic books and apparatus (p. 321).

In View of a general election in the near future, we discuss the opportunities it offers for helping on pharmaceutical legislation (p. 316).

A SANDBACH CHEMIST, who sold a druchm of strychnine to a doctor without obtaining his signature, is to be reported to the Pharmaceutical Society (p. 304).

WE publish candidates' experiences of the July Major and Minor examinations. Another candidate gives his views on improving the Major (pp. 313-314).

Mr. Dowzard continues his series of articles on the modern methods of physically and chemically examining essential oils, dealing on p. 312 with chemical methods.

THE BANQUET and reception which brought the International Congress of Pharmacy in Paris to a close last week are reported on p. 305. The scientific papers are dealt with on p. 318,

THE CHIEF INSPECTOR under the Alkali Acts reports that there was more activity in alkali-works during 1899 than for many years past. Some of the items in the report are mentioned on p. 319.

THE BRITISH CONSUL-GENERAL at Frankfort-on-Main found that Germany's share of the world's trade has advanced since 1882, whilst that of France and the United Kingdom has gone back (p. 327).

IODINE has been reduced  $\frac{1}{2}d$ , per oz. this week; cocaine has advanced 1s. 6d, and quinine has stiffened on the speculative market, owing partly to an advance in the unit at the London cinchona-auctions (p. 308).

THE CARBOLIC SCHEDULING ORDER is attracting much attention. To help chemists as to the labelling of proprietary disinfectants we give extracts from the letters received this week from some of the leading makers (p. 318).

THE COURT of the Spectacle-makers' Company have sent a reply to the deputation of the Optical Society which waited ou them in reference to trade representation on the Consultative Committee of the Certification of Opticians Scheme (p. 302).

# English Mews.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

#### Brevities.

A London tailor who had gone to Bournemouth for a few days' rest, died suddenly of heart-disease in the shop of Mr. H. Ayre, chemist and druggist, of High Street, Poole.

Andrew Gray, a workman, fell into a well of hydrochloric acid at the Globe Chemical-works, Widnes, with fatal effect. The Coroner's jury said the well should be railed round.

A subsidence occurred on August 9 in the roadway facing the pharmacy of Mr. Needham, Huddersfield Road, Stalybridge. The defect was made good by the following day.

Newport (Isle of Wight) Town Council has decided to engage Professor Attfield to conduct a chemical analysis and bacteriological examination of the town water twice a year for a fee of 61. 6s.

William Ling, of Rendlesham, has been committed for trial on bail, at the next Suffolk Assizes, on a charge of administering to his wife coloured arsenic.

A London stockbroker's clerk named Francis Edward Topping, whilst staying at Worthing, drank, on August 8, half a bottleful of carbolic solution and died before medical aid could be obtained.

The shop of Mr. C. Hare, chemist and druggist, of Birkdale, Southport, was invaded by a swarm of bees one day last week. The bees remained in occupation for some hours, and eventually Mr. Hare had to "stove" them. The dead bodies of the intruders filled a bucket. A swarm also visited the shop of Mr. C. Morrow, chemist, Hornsea, on August 13.

Mr. Clement W. Lowe, of Messrs. C. Lowe & Co, chemical-manufacturers, Reddish, Manchester, was out fishing at Barmouth on August 7, when the boat was overturned. The boatman was drowned, but Mr. Lowe, being a strong swimmer, reached the shore in safety.

The Lincoln City Council have decided to purchase a portion of the property of Mr. J. S. Battle, of Battle, Son & Maltby, wholesale chemists and druggists, Saltergate, Lincoln, for street improvements. The sum of 3,261 $\ell$ . will be paid for the property acquired by the Corporation.

#### Research Scholarships.

The Commissioners for the 1851 Exhibition have made fifteen appointments to science research scholarships for 1900. The scholarships, which are given on the recommendation of the authorities of the various universities and colleges, are of the value of 150*l.*, and are available for two or three years at universities at home and abroad approved by the Commissioners. The scholars are required to devote themselves exclusively to scientific study and research of importance to the industries of the country.

#### The Roentgen Society.

The third annual report of the Roentgen Society shows an increase of sixty-two in the membership of the Society. The *Archives* is in future to be published bi-monthly during the session. Dr. J. B. Macintyre, Glasgow, has been appointed President for the ensuing year. The accounts show balances in the hands of the Secretary and Treasurer of 1111. 9s. 5d.

#### The Speetacle-makers' Company.

It will be remembered that in March a deputation from the Optical Society waited on the Court of the Spectacle-makers' Company with a statement and suggestions relative to the representation of the trade on the examination-scheme. The reply received from the Company by Dr. Walmsley, who headed the deputation, on July 18, thanks the delegation for their attendance and for the trouble they have taken in framing suggestions, which on the whole met with the Court's most cordial approval; but the Court having come to the conclusion that a consultative committee is not necessary for the conduct of the scheme for the certification

of opticians, the suggestions will not be adopted. The reply adds that when a question arises which may make the advice of the trade desirable, a consultative committee consisting of members of the Livery of the Company connected with the optical trade will be called together. The Optical Society are to consider the reply at a meeting on October 4.

#### Analysts' Reports.

Dr. A. M. Adams, County Analyst for Kent, reports that last quarter twenty-four samples of drugs were submitted to him, and of these three were adulterated. One sample of olive oil consisted wholly of cotton-seed oil, one of spirit of nitrous ether was 59 per cent. below the B.P. standard, and one of cream of tartar was also found adulterated.

The Birmingham analyst (Dr. A. Hill) reports that there has been an increase in milk-adulteration during the past quarter. Of sixty-two samples analysed 15 per cent, were adulterated with formic aldehyde, the remaining 24 per cent, being sophisticated in various ways. Two samples were obtained from a vendor who was observed adding a white powder from his pocket to the milk while in his cart going his rounds. On analysis this white powder was found to be mainly composed of borax.

In his quarterly report the Monmouthshire county analyst, Mr. G. R. Thompson, says the most serious adulteration he had investigated was in camphorated oil. Of six samples taken only three were of correct composition, the others containing no olive oil and being deficient in camphor. Two were compounded with mineral oil and contained only one-third and one-quarter respectively of the proper amount of camphor, while another sample contained three-quarters of the right proportion of camphor dissolved in a mixture of colza and cotton-seed oils. The ninety-four samples taken by the two inspectors during the quarter included, besides, one each of compound liquorice-powder, castor oil, and friars balsam. With regard to camphorated-oil cases in the Ebbw Vale district, Inspector Serjent reports that one case was not proceeded with, as the seller was protected by a label on the bottle. One defendant from Beaufort was fined 2l. and costs. A Blackwood defendant was ordered to pay the costs, amounting to 3l. 11s. In that case the County Council were able to proceed under the Merchandisemarks Act against the wholesale firm who supplied the oil, but certain circumstances were pleaded in mitigation of the offence, and the defendants were ordered to pay the costs—51.5s. For selling adulterated sweet spirit of nitre at Newbridge, the defendant was ordered to pay the costs, amounting to 3l. 17s. 6d.

#### Bits from Birmingham.

Mr. John Corbett, salt-manufacturer, has given 10,030*l*. to the hospital bearing his name at Stourbridge, as an endowment. This brings his total benefactions to 25,000*l*.

Professor Windle, F.R.S., Mason College, Professor of Anatomy in the University School, has been appointed member of the new Consultative Committee of the Board of Education.

A pretty wedding was celebrated at the Bull Street Friends' Meeting-house, on Friday last, August 10, when the daughter of Mr. A. Southall (Southall Brothers & Barclay, Limited) was married to Dr. E. C. Taylor, of Hampstead.

The gentleman whose bequests were referred to last week (page 263) was Mr. W. H. Wood. It is interesting to note that one of the late Mr. Wood's managers, who comes in for a good sum, is the brother of Mr. C. J. Crooke, pharmacist, Bromsgrove.

Mr. Hall Edwards, radiographer to the General Hospital who is at the front, sends a delightful account of a "Jaunt up Country" (to Mafeking) to the local press. He gave a lecture on "Radiography" last session to the Midland Pharmacists' Association.

The Food and Drugs Inspector has been again visiting pharmacists in the city, but, as far as can be gleaned, none have yet been found "wanting." One pharmacist has the last samples taken from him displayed in a conspicuous place in his shop, together with the date of seizure. The time has long since passed, but the advertisement is still likely to be effective.

An attractive window-display in the branch pharmacy of a limited company in New Street this week consists of an abnormally large representation of the lemon-fruit, around which are neatly arranged packages of a special preparation called Lemon Squash. The whole colour-scheme is yellow, and certainly looks very nice and tempting, and confrèces may learn a lesson.

The Triennial Musical Festival in aid of the funds of the General Hospital takes place this year in October. The sale of tickets generally brings a good round sum (in 1897, 5,1471) to the coffers of this institution, which dates back to 1766. Although science is well represented upon the Festival Committee, there is not a single name that pharmacy can claim as its own. How is that?

Mr. Arthur Albright, of the phosphorus-making firm of Albright & Wilson, Oldbury, has left over 16,000l. to public charities. Amongst the institutions benefited are:—Albright & Wilson (Limited) Pension Fund, 3,000l.; Queen's Hospital, 1,000l.; General Hospital, 1,000l.; Birmingham University, 1,000l.; Birmingham and Midland Institute, 500l.; Birmingham Children's Hospital, 500l.; Birmingham Hospital for Women, 500l.; Birmingham Eye Hospital, 250l.; Birmingham Homœopathic Hospital, 250l.; Royal Orthopædic and Spinal Hospital, 250l.; Anti-Opium Society, 250l.; Birmingham Ear and Throat Hospital, 150l.; Birmingham and Midland Skin Hospital, 150l.; Birmingham Dental Hospital, 150l.; Birmingham General Dispensary, 150l.

#### Fire.

A destructive fire broke out on August 12 at the Thames Soap and Candle Works, owned by Messrs. Wilkie & Soames (Limited), and situated on the banks of the Thames at Greenwich. Although a large force of steamers was hastily concentrated, the manufactory, workshops, and stores were completely destroyed and a building of two floors used as a vat-room had the roof damaged by fire and the contents by water. The cause of the outbreak is unknown.

#### The Coroner and the Cough-mixture.

On August 9, Dr. H. R. Oswald, Deputy Coroner, held an inquest at Battersea on the body of Florence Louisa Needham, aged  $6\frac{1}{2}$  months. The mother stated that the child was ill, and she took her to Dr. Everard, who said she was suffering from bronchitis, and prescribed for her. Witness, however, purchased a bottle of Owbridge's lungtonic, and gave the child two 3-drop doses, one in the morning and the other at night. Next morning she found the child dead in bed. Dr. A. G. Everard said the child was suffering from acute bronchitis, and he prescribed the usual remedies, including an expectorant. A post-mortem examination revealed that death was due to acute bronchitis. He did not know whether Owbridge's lung-tonic contained opium or not, but most patent medicines contained a sedative, which made them dangerous to children. A chemist had informed him that the proprietor of the lung-tonic had lately omitted the sedatives so that grocers could sell the preparation without infringing the Pharmacy Act. The bottle was not labelled "Poison," so he presumed there was no opium present. It smelled strongly of aniseed, and he could taste peppermint in it. The directions stated that it should not be given to children under 6 months. This child was only  $6\frac{1}{2}$  months old, so it was cutting it rather fine. Any mixture containing a se lative would accelerate death by stopping the cough, and possibly depressing the heart too. Such a preparation was not good for a child under 2 years old. The Coroner commented on the folly of a parent placing a child under the care of a doctor and at the same time resorting to quack remedies of the ingredients of which she knew nothing. The jury returned a verdict of death from misadventure, and the Coroner told Mrs. Needham not to believe all she read about quack remedies and promises to cure every complaint that the human body is heir to.

#### Chemists' Licences.

Mr. W. Murray, chemist, of Middlesborough, is applying for an off wine-and-spirit licence for his premises at Newport Road, Middlesborough.

At Lowestoft, the off-licence for medicated wines, attached to the shop of Mr. C. H. Fryer, chemist and druggist, Pier Terrace, has been transferred to Mr. Tolver Postle Jary, chemist and druggist.

#### L.G.B. and Drug-tenders.

At the meeting of the Petworth (Sussex) Guardians on August 8, a letter from the Local Government Board was read stating that it was desirable that all medicines required in the workhouse should be provided at the cost of the Guardians, and not at the cost of the medical officer. The Clerk stated that the salary paid to the medical officer included the cost of medicines. The Board decided to reply to the effect that the present system appeared to be satisfactory, and that they did not deem it advisable to make any alteration.

The East Ashford Board, discussing the same subject, decided not to make any alteration for a year.

Ticehurst (Sussex) Board also discussed the Local Government Board's recommendation that drugs and medicines should be tendered for instead of being provided for by the medical officer out of his salary, at the meeting on August 9, but the recommendation was rejected.

#### Cricket-matches.

Aldersgate C.C. (S. Maw, Son & Thompson) v. Heron C.C. (J. Howell & Son).—Played at Catford on August 11. Scores: Aldersgate, 55; Heron, 36. For the winners Clay took five wickets for 11 runs, and Jordan five for 15.

#### Thefts from Chemists.

At Blackpool on August 8, William Franks, aged 13, was charged with stealing 8s from the shop of Mr. Joe Harry Taylor, chemist and druggist, of St. Anne's. The boy admitted the theft, and the Bench ordered him half-a-dozen strokes with the birch-rod.

On Monday at the Lambeth Police Court, a carpenter named Richardson was charged with being in the unlawful possession of a bottle of perfume. He admitted having stolen the property from a chemist's shop in Wandsworth Road, and begged for the infliction of a fine, and said that if he went to prison he would be ruined. A fine of 20s. and costs, or fourteen days' in default, was imposed.

#### The Dangers of Ice-cream.

In South-West Salford a series of poisoning-cases has occurred recently among children, due to the eating of ice-cream. One doctor is stated to have at least a hundred cases under his care. In some cases whole families are prostrate, but all are recovering. Samples of the ice-cream were taken, and analysis at once confirmed the suspicions of the doctors.

In a letter in a recent issue of the *Standard*, Mr. A. Smith, M.L.C.S., gives an alarming account of the products found in ice-creams taken from vendors in London and various South Coast watering-places. Mr. Smith says chemical analysis showed these so-called creams to be composed principally of boiled maize starch. Some contained gelatin or size, also traces of lead, zinc, and antimony. Bacteriological examination showed an even more appalling state of things, and the writer urged that the L.C.C. should empower local authorities to grant licences to vendors of these articles, and in cases where analysis showed impurity the vendors should be fined and their licences forfeited.

#### Outing

On August 11 the employés of Messrs. T. Morson & Son, at Summerfield Works, Homerton, had their annual outing by brakes to Thornwood, Eppirg. A substantial dinner was provided at the Blacksmith's Arms, after which the manager (Mr. Tipping) proposed a vote of thanks to the firm, which was very cordially and unanimously received. Various sports were indulged in until 6 o'clock, when tea was served, and at 7 30 a start was made for London, which was reached about 11 o'clock.

#### Drowning Fatality.

Two daughters of Mr. H. D. Brandreth, manufacturer of proprietary medicines, Birkenhead, were drowned on August 15, while buthing at Dolwyddenen, North Wales.

#### Selling Strychnine to a Doctor.

An inquest was held at Sandbach on August 10, on the body of Dr. Henry James Rice, who died from strychninepoisoning. Evidence was given by Matthew Henry Fox, pharmaeeutical chemist, Hightown, who said deceased was supplied by him with 1 dr. of strychnine. Witness wrapped the powder in paper, and affixed a poison-label.

The Coroner: Before giving it to him, did you comply with the requirements of the Poisons Act? Did you get his signature, and did you ask him what he wanted it for?— No; we do not require to do so for wholesale purchases.

The Coroner: Do you call selling a drachm wholesale dealing ?-Yes, when the purchaser is a medical man.

The Coroner: That is how you cover yourself, is it?-Yes.

The Coroner: Dr. Rice has not signed the poison-book?-No, sir.

The Coroner: And you say when you supply a doctor wholesale you are not required by the Act to comply with the rules as you would in the case of any other person?

You say that is in the Act?—Yes, sir.

The Coroner: It may be, but I have not found it yet. And you did not ask him what he wanted it for ?—No; but I said, "Strychine, doctor?" twice, and he said, "Yes." With that I was satisfied.

In reply to further questions, Mr. Fox said the doctor had been in the habit of purchasing drugs from him. deceased was odd in his manner.

By the Jury: He had frequently made up small doses of strychnine as a "pick-me-up.

The Coroner: Do you supply it to anybody?-No; only

under a medical prescription.

Dr. Johnstone described the death of the deceased, and said that he saw Fox, who told him that he had sold the deceased a drachm of morphia, but afterwards said it was strychnine.

After further evidence, the Coroner said he should report the case to the Pharmaceutical Society, being dissatisfied with Fox's evidence. The jury returned a verdict of death from strychnine, taken by misadventure.

#### An Infallible Insecticide.

At the Clerkenwell Sessions on August 13, Walter Reynolds, or Renny (56), was sent to prison for six months with hard labour for stealing a silver watch, value 5l. 5s. A police constable, who had made inquiries as to prisoner's antecedents, said he found that prisoner had been in the habit of calling upon tradesmen and others with a supposed infallible exterminator of cockroaches, beetles, &c., the recipe of which he was willing to sell for a consideration. So voluble and persistent was he that he sometimes received money from traders to get him off the premises. One shopkeeper upon taking the recipe to a chemist was told that the ingredients were nothing more than was contained in ordinary flea-powder. The police constable added that the prisoner sometimes talked of this unpleasant subject in erowded pastrycooks' shops and restaurants, occasionally receiving money in order that he might disappear as speedily as possible.

# Zrish Mews.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

#### New Chemical-works.

At Arklow, co. Wicklow, a large building for the manufacture of lyddite is at present being erected, and another is in course of construction at the same place for the treatment of nitrate of soda. There are already several extensive chemical-works in Arklow.

#### Methylated Spirit not a Medicine.

The Armagh Board of Guardians have refused to supply methylated spirit to the dispensary and workhouse infirmary because the L.G.B. do not include such in the list of medicines, and hence do not refund any portion of the cost. The Guardians wrote asking the LG.B. why the drug was

not included in the list. In reply, the L.G.B. state that the drug is not included in the British Pharmacopæia, and hence could not be included in theprescribed list. The Guardians have resolved not to purchase methylated spirit until the L.G.B. give a guarantee to refund half the cost.

#### Contract Objected to.

MULLINGAR UNION MEDICAL APPLIANCES.—The tender of Dr. Loder, a local man, at 20 per cent. under standard prices, was recently accepted by the Board for the supply of surgical and medical appliances, but as he is not a wholesale dealer the L.G.B. refuse to sanction the proceeding. In the past, it appears, Dr. Loder gave satisfaction, and the Guardians have again requested the L.G.B. to recognise the contract, as it was the lowest.

# Scotch Mews.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

#### Theft from a Chemist.

At the Ayr Police Court, Thomas McLelland, a vagrant, was remitted to the Sheriff's court for stealing two toothbrushes, two boxes of vaseline camphor ice, and a box of gout-cure from the shop of Mr. Beveridge, chemist, Newmarket Street, Ayr.

#### A Chemist's Accident.

In an accident which happened to a carriage-party in Stornoway on August 8, one of the greatest sufferers was Mr. A. E. Watson, chemist and druggist, Stornoway, manager to Mr. S. Lawrence. Mr. Watson was severely injured about the head, and was for a considerable time unconscious. He is still in a critical condition.

#### Food and Drugs in Scotland.

At a meeting of the Public Health Committee of the Forfar County Council at Forfar on August 13, the Clerk submitted a suggestion by the Government Inspector that an arrangement should be made between the County Council and the Commissioners of Police Burghs, with a view to the administration of the Food and Drugs Acts within these burghs by the county authority. It was stated that for some time past very little had been done in Forfarshire in the administration of the Acts, and the inspectors suggested that they should work up to some definite standard and that at least 100 samples (not including water) should be taken yearly in the county. After discussion it was resolved to communicate with the police burghs with a view to securing their co-operation, and that county officials be instructed to be more active in the carrying-out of the provisions of the Acts.

# Hew Books.

Dawson, Maria. Further Observations on the Nature and Functions of the Nodules of Leguminous Plants. Phil. Trans. B, Vol. 193, 1900, pp. 51-67. 2s. (Dulau.)

Green, J. R. Introduction to Vegetable Physiology. 83 x 51.

Pp. 480. 10s. 6d. (Churchill.)

Hart, J. H. Cacao: Treatise on the Cultivation and Curing Lewes, V. B. Acctylene: Handbook for Student and Manufacturer. 8\frac{3}{4} \times 5\frac{3}{4}. Pp. 1004. 31s. 6d. net. (Constable.)

MacMahon, P. A. Combinatorial Analysis: the Foundations of a New Theory.

Phil. Trans. A, Vol. 194, 1900, pp. 361-386.

Shenstone, W. A. Elements of Inorganic Chemistry for Schools and Colleges.  $7\frac{1}{2} \times 5$ . Pp. 518. (E. Arnold.)

Sutton, F. Systematic Handbook of Volumetric Analysis. 8th ed.  $8\frac{7}{8} \times 5\frac{1}{4}$ . Pp. 652. Adv. to 20s. (Churchill.)

Whetham, W. C. D. Ionisation of Dilute Solutions at the Freezing-point. Phil. Trans. A, Vol. 194, 1900, pp. 321-360. 2s. 6d. (Dulau.)

Materia Medica, Pharmacy, Pharmacology, White, W. H. Materia Medica, Pharmacy, Pharmacology, Therapeutics. 5th ed.  $6\frac{1}{2} \times 4\frac{1}{4}$ . Pp. 658. 7s. 6d. (Churchill.)

# French Mews.

Congress on Customs.—An international congress to consider the best methods of simplifying all Customs formalities and regulations met in Paris last week. There was a large gathering of representatives of all foreign States. Great Britain was represented officially by Mr. Austin Lee, of the British Embassy. The London Chamber of Commerce sent as delegates Mr. S. B. Boulton, Chairman of the Tariff Committee of the Chamber, and Mr. Prowse, late Secretary of her Majesty's Customs.

LUCREZIA BORGIA REDIVIVUS.—A report is going the rounds of the daily papers of a mysterious Polish woman who sent by post to the Italian Secretary of the Chinese Legation a flower, resembling a daisy, which is said to possess anæsthetic properties. The Secretary mechanically applied the flower to his nose, and was instantly overcome with a drowsy sensation, but revived with a sniff of smellingsalts. Two attendants experienced the same sensations, and the "poisoned flower" is now in the possession of the police.

This portrait, received too late to use in our report of the Congress of Pharmacy last week, is that of M. Emile Leidié a prominent Paris pharmacist and one of the



M. EMILE J. LEIDIE.

Organising Committee of the Congress. M. Leidie is an ex-President of the Paris Society of Pharmacy, Professor at the School of Pharmacy, Paris, and chief pharmacist of the Hospital Necker, Paris.

HYGIENE AND DEMOGRAPHY.—Succeeding those of pharmacy, medicine, and dentistry, has come the International Congress of Hygiene and Demography, now being held in Paris (August 10 to 17), Dr. Brouardel, the leading French hygienist of the present day, being the President. The Congress is well attended, and is divided into several sections, comprising hygiene of travelling, international hygiene (including the spread of infectious diseases), bacteriology, hygiene of food, chemistry, and veterinary work, architecture and engineering, cremation, demography, unhealthy dwellings, and others relating to travelling, as well as the army and navy. The Paris Academy of Medicine recently discussed the question of the danger to the feet resulting from the use of poisons in boot blacking and varnishes, but this does not appear to be included in the programme of the Congress; neither is the subject of dangerous hair dyes and washes down for discussion, although it would come well within the scope of hygiene. Special interest has naturally eentred round the subject of military hygiene in view of present events.

#### The International Congress of Pharmacy THE BANQUET.

LAST week we briefly reported the banquet given to the members of the Congress of Pharmaey in the Palm-house of the Jardin Zoologique d'Acclimatation, Paris. The guests numbered between three and four hundred, and were seated at three tables extending the length of the Palm-house, the President being placed at the centre of the middle table. The evening was, unfortunately, cooler than had been anticipated for August, so that the guests were none too warm; but this, of course, was quite unavoidable, as the huge glass-house is an ideal hall for a banquet on a summer After dinner a few speeches were made.

M. Petit said he much appreciated the honour of being called upon to preside over so distinguished an assembly of pharmacists. The members of the Congress included delegates from the leading countries of Europe and America, and their names were synonymous with the best traditions of their profession of pharmacy. He was confident that their deliberations would be to the ultimate benefit of pharmacy, and he was glad to say nothing had marred the harmony of their gatherings. Fine weather had favoured them, especially for their excursion on the previous Saturday to Garches and St.-Cloud, and the day thus spent had been the feature of their social gatherings. He tendered his best thanks to all the congressists for their assistance and uniform good-fellowship, asking the company to drink the healths of "The Foreign Delegates."

Professor Tikhomirow, of Moscow, replied on behalf of the foreign delegates. He said they would return to their respective countries, taking with them a hearty appreciation of the cordial reception they had received in Paris, as well as of the high scientific position pharmacy held in France.

M. Bernadez (Belgium), in a neat and very audible speech, said he could not let the occasion pass without expressing his thanks and admiration for the way the Congress had

been organised and so successfully carried out.

M. Ranwez (Louvain), President of the 1897 Congress, said they had had the pleasure and honour of the presence of MM. Petit and Crinon, as well as other prominent French pharmacists at the Congress held at Brussels. At the banquet were also present several other members of the committee of three years ago. Paris was famous for her open-handed hospitality, and French pharmacists had fully maintained the tradition.

M. Vogl, who spoke in German, added his thanks to those of the former speakers. It had been both a pleasure and

profit to him to attend the Congress.

M. Julliard, the veteran and popular Paris pharmacist, always so much sought after as an after-dinner orator, made an amusing speech in rhyme, taking off some of the weak points of French pharmacy.

M. de Mazières, in his capacity as a Vice-President of the Congress and organiser of the entertainments of the Congressthanked all the members for their hearty co-operation and goodwill. He asked them to drink to the success of the

next (tenth) International Congress of Pharmacy.

M. Lejeune (Reims), on whom had devolved the duties of leading the applause in the French "ban," spoke on behalf of the provincial pharmacists of France. He hoped the Congress would mark the starting-point of a new era of prosperity for pharmacy, not only in France, but in all the world. They had all enjoyed the Congress very much, in spite of the discussion of many vexed questions. (Laughter.)

Mr. W. A. Wrenn, Mayor of Taunton, who was present wearing his insignia of office, was next called upon by the President. Mr. Wrenn's talent as an orator showed to great advantage in the large hall. He spoke of the high esteem in which French pharmacy is held in Great Britain, and expressed the hope that an International Pharmacopeia, in a more or less developed form, would be one of the results of the Congress. He thanked M. Petit and the committee of the Congress for the courtesy extended to the English pharmacists who had attended the Congress.

M. Ibrahim Romano, Turkish delegate, who advanced to the table of honour in troubadour style, with a cloak thrown lightly over his shoulders, proposed the toast of "French Pharmaey," for which, he added, pharmaeists of all countries

have ever had great respect and admiration.

M. Altan (Roumania) spoke of the International Pharmacopæia, in which he is much interested. He had great hope for its success.

M. Maurice Duyk (Brussels) (Secretary of 1897 Congress), proposed the health of M. Crinon, the General Secretary of the Congress of 1900. He said he knew something of the duties of a secretary and the work it entailed, but M. Crinon knew a good deal more, and had done his work admirably.

M. C. Crinon made a short speech in reply. He modestly said his task had been greatly facilitated by the members of the Organising Committee, and most of all by the members of the Congress themselves. He felt amply rewarded by the success that had attended their meetings, and thanked them one and all.

It was half-past 10 when the list of toasts was terminated. Vehicles had been provided by the committee to carry guests to their destination in different parts of Paris. A number decided to profit by the invitation of the President of the Republic to attend a reception given to members of the various congresses in Paris, and accordingly drove to the Elysée Palace.

Arrived at the Elysée we found the palace brilliantly illuminated. Tall men-servants scanned our Congress tickets and showed us the way to the cloak-room, where we left our overcoats and umbrellas. Hat in hand we passed up a broad staircase, Republican Guards being posted on each step on both sides of the stairs. The suite of rooms was brilliantly illuminated and decorated, and in the furthermost one a band was playing. The Congressists wandered about the rooms amidst the gorgeous surroundings until close on 12 o'clock, when we made our way back to our hotels—the scene we had witnessed indelibly fixed in our minds.

#### THE GARDEN-PARTY.

On Friday, August 10, President and Mme. Emile Loubet gave a garden-party in the grounds of the Elysée Palace. About six thousand guests were present in all, including the Shah of Persia and other dignitarics, and a large number of the members of the Pharmacy Congress, to whom personal invitations had been given. The crush of carriages outside the palace was so great that it was necessary to be there long before the hour announced, to secure an early entry. Ambassadors and members of the Corps Diplomatique were admitted before 4, but members of the Congresses had to remain outside till the time announced. After depositing umbrellas and overcoats we went up the staircase as at the Wednesday night reception, and heard our names announced to the President. The President and Mme. Loubet bowed in response to our bows. We also saluted the members of the Corps Diplomatique, and those of the same nationality returned the compliment. From the salon we passed to the garden, the paths of which were carpeted for the occasion. The President received till 5 30, when the Shah of Persia arrived. The Shah escorted Mme, Loubet to the garden, whilst the President took out Mme. André. The principal entertainment for the guests consisted of a series of ancient and modern dances, performed with exquisite grace. A handsome stage with magnificent scenery had been erected in the garden for the purpose, and an exceptionally good orcness a supplied the music. The function was a great success, and though rain threatened it held off. The humorous element was supplied by the young men of all nationalities, who were supplied by the young men of Students. They were largely represented, and the splendid buffet had a peculiar attraction for them. At 6 o'clock the scene there beggared the distribution of food to a famine-stricken population. Some hundreds of men were standing at the long table, which formed the principal buffet, and one saw a surging mass of uplifted hands eagerly held out for champagne, ices, iced lemonade, cakes, or other delicacies. The waiters did their best, but the onslaught was evidently unexpected, and they could not keep pace with the appetite and thirst of the student-guests. A few ladies stood on the outskirts of the crowd, smilingly waiting to see what their champions could bring them. Fortunately, there was a temporary heavilled and the crowd the country them. temporary hospital and pharmacy in a guard-room of the palace, but no deaths or serious accidents are reported. is fair to say that in the grounds two other and smaller buffets were in full swing, where decorum reigned supreme.

## War Motes.

TRANSVAAL AND O.R.C. SUBSCRIBERS.—Any subscribers of THE CHEMIST AND DRUGGIST whose places of business were in the Transvaal and Orange River Colony, and who have not received their copies since the war broke out, are requested to send their names and addresses to the Publisher, 42 Cannon Street, London, E.C. We have reserved their copies of THE CHEMIST AND DRUGGIST and copies of the DIARY, and these we shall send to them as soon as they inform us of their addresses.

MR. J. G. ROLLIN, chemist and druggist, Durham, has received the welcome news that his son, the Rev. Frank C. Rollin, B.A., of Johannesburg, is safe and well. Mr. Rollin remained in the Transvaal from the outbreak of hostilities, and was one of the four British ministers who were allowed to remain in Johannesburg after the explosion of the arsenal and shell-factory.

CIVIL COMPOUNDER'S Correspondence. — Sergeant Davidson, who joined the De Aar hospital as a compounder, writes to Mr. W. T. Trehearn, of New Cross, as follows :-

General Warren's Column, Schmidt's Drift (or elsewhere), S. Africa, I3/7/00.

General Warren's column, to which our little lot is attached, has been on the move now for over nine weeks, and at every unlikely time I have had the greatest pleasure in reading papers from you. You can have no idea how welcome they were to me. We usually managed to halt at a village which consisted of a few houses, a looted store, and a few Kaffir huts on the outskirts, and had to depend solely on our rations, which were pretty meagre at times. However, now that we are on the high road to Kimberley again, and look back on the last nine weeks, we have not had such a bad time after all; certainly it was a bit rough at times, especially that morning when our camp got surrounded by rebels and we lost twenty-three men and got thirty-five wounded. I don't want another corner like that—it was quite hot enough for me, for there was no respect for the Red Cross that morning. Out of our lot of fifteen our sergeant-major got killed and two of our sergeants got wounded. I was then corporal and had to take over duty as sergeant, being the only non-com left; since that time I have been in charge, and have had a pretty busy time, although now that we are halted for a few days I am all right.

There is a rumour of our going to Cape Town after we reach kimberley, but I sincerely hope we will not be disbauded until

the war is over.

Yours very sincerely,
SAM. R. DAVIDSON, Sergt. C.M.S.C.,
Cape Field Hospital, Warren's Column, S. Africa.

Our correspondent with Lord Roberts's forces thinks that the end is in sight, although he has still many invalids to tend and dispense for :-

Racecourse Hospital, Pretoria,
June 26, 1900.
You may perhaps have heard that our mails of April 26 and May 4 were captured by the Boers and burned. Bad luck to the bounders! You doubtless read in in my last I was trying to get my discharge out here. The officials are so disobliging, however, that I can find out nothing as to how, when, or where I could get it, and your letter has given me a craving for the "flesh-pots of Egypt," so I shall tell the major not to trouble any more in the matter, and wait till the war finishes to get home in the ordinary manner.

July 7.-It's now more than a month since we arrived at Pretoria, and not much chance of leaving it in a hurry. It's getting very monotonous, although we have plenty to do. Lately getting very monotonous, although we have plenty to do. Lately we have been diverting ourselves with cricket. Your humble had the honour of playing in the first match between British troops in Pretoria. In our second match against the Army Service Corps. I scored I6 and 34, and took several wickets. In the third match I got an awful smack in the chops, and my beauty is irretrievably marred; that was keeping wicket. We have over 300 in hospital, all sorts and conditions of men—colonials, Yanks, Ycomanry, late prisoners of war, all sorts.

- came down to see me the other day. I mixed him Farmer a concoction of sugar, tr. card. co., ethyl hydrate, and water, and sent him away comforted. The Boers had commandeered any quantity of drugs from Johannesburg only a fortnight before, so we had plenty to go on with. Dressings we have to do in abundance, and all operations are conducted in this surgery. The only excitement now is the weekly arrival of the mail and the papers it brings us to read. Roll on the end of the war now—we shall see no more fighting, I am afraid, and this stopping in a fixed camp is deadly dull.

# Colonial and Foreign Mews.

TUBERCULOSIS IN RUSSIA.—A permanent commission for the study of tuberculosis as a disease of the people has been formed in Moscow, under the presidency of Professor Scherwinsky.

N.A.R.D.—The annual meeting of the National Association of Retail Druggists (the American P.A.T.A.) will be held at Detroit on September 12. A large and interesting gathering is anticipated, as during the past year much progress has been made. An attractive programme is promised the visitors.

HUNYADI JANOS WATER IN NEW YORK.—At the New York Court of Sessions, Henry A. Steinaeh, a druggist, of Manhattan, has been fined \$250, with an alternative of sixty days in gaol, for unlawfully using and refilling genuine Hunyadi János water bottles with an artificial product put up by him at his establishment.

Condy Cases.—Messrs. Condy & Mitchell obtained an injunction on July 6 against Mr. Arnold, chemist, Ulney, South Australia, restraining him from selling under the description of "Condy's Crystals" any chemicals and preparations not manufactured by the plaintiffs, or from selling permanganate of potash or any other substance equivalent in solution and composition of Condy's fluid. Defendant has also to pay the costs of the action.—At Sydney, on June 23, a decree was obtained restraining Robert Nall (trading as Fuerth & Nall) from printing or selling any labels in imitation of the plaintiffs' label, or any labels bearing thereon a statement representing that a solution of permanganate of potash was the same as "Condy's Fluid," and from publishing a book of stock-labels with the labels complained of affixed therein; and that the defendant should deliver up to the plaintiffs the labels complained of. The defendant was likewise ordered to pay the costs of suit.

Austrian Items.—The thirty-ninth annual meeting of the Austrian Apotheker-Verein will be held in Villach from September 2 to 4. The subjects to be discussed include the reform-movement for pharmacists and the nomination of a Pharmacopœia Commission.—Women will now soon be able to study pharmacy and medicine in Austria; permission to that end is pending.—An order has been passed that apothekers are prohibited from giving on the prescriptions of foreign doetors any medicaments they may not sell without a prescription at all (morphine, for example).

TRADE RESTRICTIONS IN SMYRNA.—The British Consul at Smyrna reports that pharmaeeutical products, and medicinal substances in general, are the object of vigorous examination, and any article that can in the remotest way be connected with any kind of explosive is confiscated, while a more or less arbitrary elimination of patent medicines is enforced. Pending an issue to the efforts being made to remove these obstacles, intending importers, when not specially instructed by their correspondents at Smyrna, would be wise to ascertain whether any of their goods intended for shipment are liable to be stopped.

Coloured-fire Conflagrations.—The Fourth of July celebrations and the consequent trade in "red fires" were the cause of two costly fires in Cincinnati last month. The first occurred at the drug-store in Newport, Ky., where an assistant was mixing a lot of about 25 lbs. and left it to attend a customer. When a few feet away the mixture exploded, and damaged the store to the extent of \$300. The entire front windows were blown into the street, but fortunately nobody was injured. The second fire was occasioned by the spontaneous ignition of a number of pound packages of red and green fire on the counter ready for sale. The damage done in the latter case is figured at \$1,000.

VICTORIAN 'TARIFF-CHANGES.—In continuation of the notice which appeared on page 291 of last week's C. & D., the following is a further list of decisions issued by the Department of Trade and Customs of Victoria affecting the application of the tariff of the colony:—

Free.—Gingerine (W. J. Bush & Co., containing no alcohol); glaze pearl (as oilmen's stores); malted food (C. J. Hewlett & Son); orthoform (new), in 1 oz. bottles, is a chemical of one ingredient, in dispensing quantity, and not for retail sale; protargol, a

chemical in 1-oz. bottles, not recommended; urotropin, in 1-oz. packets, not recommended; Sanitas disinfecting-tablets; colour-less solution composed of silicate of soda. 20 per cent. ad val.—Sanitas antiseptic tooth-powder; Vinolia powder (as perfumery); liquid in tubes for use in eatching flies, &c. (as oilmen's stores). 24s. per gal.—Bayrum, "Cleaver's" (as perfumed spirits); eau dequinine tonic, "Ed. Pinaud"; hair tonic ("Sea-foam"). 12s. per liquid gal.—Blended oil containing over 50 per cent. of proof spirit, and essence of rum containing 72-4 per cent. of proof spirit; lemon-flavouring containing alcohol. 25 per cent. ad val.—Salophen when recommended or packed for retail sale or consumption; tannoform in 1-oz. packets. 4d. per lb.—Sanitas family soap.

RUSSIAN CHEMICAL INDUSTRY.—The chemical industry of Russia is at present comparatively undeveloped, but the importation of foreign ehemicals is reported to be gradually decreasing. Though there is a very large quantity of pyrites in Russia, the import of foreign pyrites is by no means diminishing, despite the high duty, and the manufacture of sulphuric acid from them is increasing so rapidly that in 1897 the quantity of this acid imported had fallen to 10,000 poods. Imports of nitric and hydrochloric acid in the same year were valued at 42,000r., whereas in 1890 they amounted to 1,266,000r. The enormous deposits of Glauber salts at Karabougaz Bay, on the Caspian, as well as those in the province of Astrakan, are now to be seriously worked by a large French company. The consumption of soda in Russia amounts on an average to 5,000,000 poods a year, and as there was only one company manufacturing it on a large scale, the importation of it was maintained until the present year, when new works were opened in Slaviansk.

U.S. PHARMACOPŒIA CONVENTION.—A certificate of incorporation of the United States Pharmacopæia Convention has been filed at Washington. The period of incorporation is 999 years, and it is provided that during the first year of its existence the affairs, funds, and property of the Convention shall be vested in a board of trustees composed of seven members. The purposes of the Association are "the encouragement and promo-tion of the seience and art of medicine and pharmacy, by selecting by research and experiment and other proper methods, and by naming such materials as may be properly used as medicines and drugs, with formulas for their preparation; by establishing one uniform standard and guide for the use of those engaged in the practice of medicine and pharmaey in the United States, whereby the identity, strength, and purity of all such drugs may be accurately determined, and for other like and similar purposes, and by printing and distributing at suitable intervals such formulas and the results of such and similar selections, names, and determinations among the members of the Association, pharmacists, and physicians generally in the United States and others interested in pharmacy and

The Board of Trade have received a copy of a Russian Imperial ukase, dated July 21, stating that, in order to defray the extraordinary expenses necessitated by events in the Far East, the Russian Government have decided to temporarily increase the duties on articles comprised in certain sections of the Russian Customs tariff on their importation into Russia from European countries. The conventional tariffs existing in conformity with the treaties between Russia and other States will not be affected by the present ukase, which was to come into force from July 23, the date of its promulgation. The following are among the articles on which the duties have been increased:—

(1) Increase of 50 per cent.—Spices, roasted coffee and its substitutes, cocoa, tobacco, cigars and cigarettes, wines in casks, beer and cider, caoutchouc and guttapercha, and gums in general. (2) Increase of 30 per cent.—Raw coffee. (3) Increase of 20 per cent.—Marmalade and ground cocoa (unsweetened), animal fats, candles, liquid products of petroleum, &c., oil of turpentine (former duty, 48r. per poud). (4) Increase of 10 per cent.—Bone-glue (former duty, 16r. 50cop. per poud), various chemical products, including sal ammoniac, carbonate of ammonium, soda and potash, chloride of lime, acids, &c., castor oil, cocoanut and palm oil, volatile and sweet scented oils, soap, varnishes, tanning-extracts, indigo, and various colours (former duty, 4r. 80cop. per poud).

A full statement of the alterations in duties can be consulted at the Intelligence Branch of the Commercial Department of the Board, 50 and 51 Parliament Street, S.W

# Trade Motes.

CERVELLO'S APPARATUS for the treatment of pulmonary tuberculosis, which we noted as being shown at Ipswich at the stand of Mr. E. Merck, 16 Jewry Street, E.C., was not, we are informed, one of Mr. Merck's exhibits.

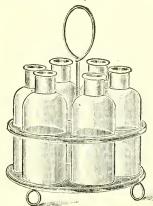
MR. JOHN BARCLAY (Southall Brothers & Barclay), Lower Priory, Birmingham) informs us that he expects to have the new edition of Southall's "Materia Medica" in the hands of the publishers in the course of a week or ten days.

CATALOGUES IN FOREIGN LANGUAGES.—The Thornton-Pickard Manufacturing Company, Altrincham, have just got out a French edition of their illustrated photographic catalogue. Their series of catalogues for 1900 now comprise English, German, Spanish, and French editions, and a special edition for the United States with prices arranged to include import-duties.

HEXHAM VIEWS.—We gather a very good idea of the natural and architectural beauties of Hexham from an album of views of that neighbourhood just published by Mcssrs. Gibson & Sons, chemists, Hexham. Mr. Gibson is a well-known photographic expert, his reputation having been made many years ago, and that it is still maintained the album before us fully testifies.

"PROFITABLE ADVERTISING" is the title of a very artistic and thoroughly smart monthly pamphlet dealing, by illustration as well as letterpress, with the all-important subject of its title. Mr. Charles Vernon, 118 and 119 Newgate Street, E. C., is the publisher, and he will send to any of our subscribers a copy, post free, on receipt of postcard. The pamphlet is well worth perusal by all go-ahead chemists.

A SIMPLE STERILISER.—The infants'-milk steriliser, manufactured by Messrs. Browne & Sayer, 104 Upper



Thames Street, E.C., exemplifies the maximum of efficiency with the minimum of trouble. It consists, as will be seen from the illustration, of six sterilising-bottles placed in a light tin stand. The milk to be used is placed in the bottles, each bottle plugged lightly with cotton-wool, and the whole then heated in an ordinary saucepan of water to the temperature required. Each steriliser (retail price 2s. 6d.) is packed in a strong cardboard box, in which a parcel of cottonwool and a bottle-brush are

likewise included. Full directions for use are sent out with each package.

# Business Changes.

Notices are inserted free in this section if properly authenticated.

Mr. F. E. Coombe has purchased the branch business of Mr. F. A. Willcock at 103 Stafford Street, Wolverhampton.

Mr. S. Kitley, chemist and druggist, has purchased the business of Mr. H. V. Horsey, at 73 Lodge Road, Southampton.

Mr. J. Bostock, chemist and druggist, has purchased the business lately carried on by Mr. A. T. Riley, at  $84~{
m High}$  Street, West Cowes, I.W.

Mr. Francis D. Phillips, chemist and druggist, has purchased the business hitherto carried on by Mr. W. H. Williams at Haverfordwest.

Mr. R Hope, pharmaceutical chemist, has purchased the wholesale and retail chemist's business hitherto carried on at 27 Strickland Gate, Kendal, by Mr. M. Burton.

Messrs. Thomas Christy & Co., of 25 Lime Street, E.C., are removing on Monday (August 20) to more commodious premises at 4, 10, and 12 Old Swan Lane, Upper Thames Street, E.C.

The business of Richard Lüders (analytical and technical chemist) at 13 Mühlweg, Görlitz, Germany, the proprietor of which is Dr. Alexander Katz, has been amalgamated with that of Dr. Willy Meyer.

Messrs. W. Joseph & Co. (Limited), of The Pharmacy, High Street, Tenby, have purchased the business lately carried on by Mr. Davies, as chemist and druggist and mineral-water manufacturer, in that town.

MESSRS. H. WARD & Co. (LIMITED), manufacturers of rubber goods, have removed from 46 to 60 De Beauvoir Crescent, Kingsland, N.E., to more commodious premises known as the Homerton Rubber-works, 4 Churchill Road, Homerton, N.E.

MR. OWEN WALLIS, pharmaceutical chemist, has succeeded to the old-established proprietary and dispensing business of Messrs. J. Robbins & Co., which he will continue under the title of O. Wallis & Co. at the present address, 189 Wardour Street, Oxford Street. Mr. Wallis has held the position of manager to Messrs. J. Robbins & Co. for many years, and will continue to manufacture the various well-known chemical and pharmaceutical preparations with which their name is associated.

# Scientific Progress.

**Preparation of Iodoform.**—A German patent for the preparation of this body has been taken out by Otto. It depends on the use of ozone. A mixture of potassium iodide, alcohol, and alkaline carbonate is treated with ozone, when the whole of the iodine is liberated, and reacts with the alcohol in the ordinary manner. It is not necessary to use pure potassium iodide, the mother-liquors in the kelp industry being also suitable (*Pharm Zeit*, 1900, 202).

**Carnosin, a New Meat-base.**—Gulewitsch and Amiradzibi (Berichte, 1900, 1902) have isolated a new organic base from extract of meat, which they have named carnosin. The nitrate in aqueous solution is dextrorotatory  $\lceil a \rceil_D = +22^\circ 18'$ . It melts with decomposition at 211°. Its formula is either  $C_9H_{15}N_5O_6$  or  $C_9H_{17}N_5O_6$ . The free-base melts at 239° with decomposition, and has the formula  $C_9H_{14}N_4O_3$  or  $C_9H_{16}N_4O_3$ . Physiological experiments with this substance are being undertaken.

Preparation of Tonone.—An American patent (No. 652,969), which appears to raise important chemical questions, has been taken out for the preparation of ionone. A mixture of equal parts of "allo-citral" (is this Stiehl's allolemonal?) and acetone is shaken for several days with barytawater, and the unaltered bodies scparated by a current of steam. The condensation-product—a "methyl-undecyl-ketone"—is converted into ionone by dilute sulphuric acid, and the boiling-point raised by the addition of glycerin.

"Hedonal."—Under this name the urethane of secondary amyl alcohol has been put upon the market. It is a compound of the formula NH<sub>+</sub>(CO)-OCH(CH<sub>+</sub>)(C<sub>5</sub>H<sub>7</sub>), forming colourless crystals melting at 76° and boiling at 215°. It is easily soluble in hot water, and in the proportion of 1 in 102 at 37°. It is stated to be a very powerful and very safe hypnotic. It breaks down in the organism into CO<sub>2</sub>, ammonia, and urea. A sleep lasting about seven hours is induced in twenty to thirty minutes after a dose of 2 grammes. Diuresis is also produced.—(Bull. d. Sc. Pharm. ii. 377.)

A New Source of Geranyl Acetate.—If the observations of H. G. Smith, of Sydney, are confirmed, and cultivation is feasible, the essential oil of Darwhita fascicularis should prove a most valuable adjunct to the perfumer's art. The chief constituent of the oil is the highly oloriferous ester, geranyl acetate, which occurs to the extent of nearly 60 per cent. The sp. gr. of the crude oil is 0.9154 at 19°, and when the dark-coloured acid constituent was removed by shaking with caustic-alkali solution, the optical rotation was + 1° 12′. The yield of oil was 0.32 per cent.

Perfume Chemistry—An interesting note on civet, jasmin, and roses appears by Walbaum in the current issue of the Berichte (xxxii., 1903). Walbaum states that he some time ago found in jasmin oil benzyl acetate, benzyl alcohol, and other compounds, whilst the higher fractions had an odour of indol or skatol. Hesse, however, was the first to announce the discovery of indol in oil of jasmin obtained from jasmin pomade, whilst

he was unable to find any trace of it in oil distilled from fresh flowers. He suggested fermentation as the cause of this. Walbaum now finds traces of skatol in civet, which is frequently added to flower-pomades as a fixer, but no indol, and it appears probable that Hesse's suggestion is correct.

**Japanic Acid.**—According to Geitel and Van der Want japanic acid is one of the constituents of Japan wax. It forms fine white leaflets which melt at  $117^{\circ}-118^{\circ}$ . The formula for this acid is  $C_{20}H_{40}(COOH)_2$ . By heating it to 200° a ketone of the formula

heating it to 
$$2$$
 $C_{10}H_{20}$ 
 $C_{20}$ 
 $C_{20}H_{20}$ 

is formed melting at  $82^{\circ}$ - $83^{\circ}$ .

Alkaloidal Synthesis.—The constitution of the base hygrine, C<sub>8</sub>H<sub>15</sub>NO, one of the constituents of Truxillo cocaleaves, may now be regarded as practically determined. By gentle oxidation it yields an acid of the formula C<sub>8</sub>H<sub>11</sub>NO<sub>2</sub>, which has been identified as the carboxylic acid of methyl pyrrolidine, of the formula given below. The relationship of hygrine and this body, "hygric acid," is thus shown:—

The close relationship between hygrine and cocaine, the former probably being one of the stages in the natural formation of the latter in the plant, brings the synthesis of cocaine more within the bounds of possibility.

New Camphor Compounds.—Aschan (Berichte, xxxiii, 1006) has prepared pinene hydriodide from the dextro-pinene of American turpentine oil, and reduced it in acetic-acid solution witb zinc-dust and hydriodic acid. In this manner he obtains a camphane forming characteristic leaflets, melting at 153°. Its formula is  $C_{10}H_{18}$ , and it is optically inactive. Bertram and Helle (Jour. Prak. Chem. 1900, 293) have hydrated the terpene fenchene witb acetic and sulphuric acids, and find that it yields a secondary alcohol, isomeric with borneol. This body— $C_{10}H_{18}O$ —the authors term isofenchyl alcohol. It is obtained pure by sublimation, when it forms fine needles melting at 62°, with an odour resembling borneol. Its specific rotation is  $-25^\circ$  42′. It easily gives up water with the formation of a terpene ( $C_{10}H_{16}$ ), but whether this is identical or not with fenchone bas not yet been determined.

Compounds of the Cinchona Alkaloids.—The periodides of several of the cinchona alkaloids have long been well known. Christensen (Pharm. Zeit. 1900, 119) has prepared the corresponding perbromides of several of these important bases, and, in addition to fully describing their characters, he has made the important observation that the bromine which combines directly with the alkaloid is added, and not substituted; and suggests that these perbromides have the following general constitution:—

(Base Br<sub>2</sub>) H·Br·Br

#### $\mathbf{H} \cdot \mathbf{Br} \cdot \mathbf{Br}$

Quinine dibromide perbromide,  $C_{20}H_{21}Br_2N_2O_{22}2HBr.Br_2$ , is a crystalline orange-red powder, free from water of crystallisation. It forms a beautiful mercury salt. Several other derivatives of this quinine dibromide are also described. Cincbonidine dibromide perbromide,  $C_{19}H_{22}Br_2N_2O.2HBr.Br_2$ , forms yellow crystalline leaflets. Cincbonine dibromide perbromide,  $C_{19}H_{22}Br_2N_2O$ , forms beautiful prismatic needles, easily soluble in water.

The Nitrogen-content of Resins.—Gorodkow has examined a number of the better-known resins, and finds that many of them contain appreciable quantities of nitrogen. although no well-defined nitrogenous constituent has yet been identified in them. The following are the results obtained for a number of the samples which he examined:—

Dragon's-blood	Lac (Grains)
(1) 0.70 per cent.	(1) 0.43 per cent.
(2) 0.41 per cent.	(2) 0.62 per cent.
Labdanum	Yellow Acaroid
(1) 0.06 per cent.	(1) 112 per cent.
(2) 0.38 per cent.	(2) 1.75 per cent.
Heptaphylla Resin	Res. Canarii Stricti
(1) 1 92 per cent.	(1) 0.29 per cent.
(2) 0.30 per cent.	(2) 0.27 per cent.

(3) 1·19 per cent.

No nitrogen was found in Canada balsam, liquid storax, Peru balsam; traces were found in copaiba, gurjun resin, Chian turpentine, and larch turpentine.—(Farmaz. Journ., 1900, 313).

# Personalities.

Mr. B. Bommezijn, formerly with the firm of John Pryce & Co., has been appointed manager of the Bandong Quinine-factory, in the place of Mr. Sythoff.

DR. WM. H. LANG, F.C.S., has been appointed Professor of Chemistry in the University of Toronto. Dr. Lang is a D.Sc. of Glasgow University, where he was at one time chief assistant to Professor Ferguson, and lecturer on organic chemistry.

The members of the Wirral Liberal Association were entertained at a garden-party at Spital Old Hall on July 9 by Mr. and Mrs. Edward Evans, jun. There was a large attendance, and the host, who is retiring from the chairmanship of the Association, which he has held for the past thirteen years, was presented with a handsome illuminated address, expressing the high esteem of the members for Mr. Evans, and their gratitude for his services to the Liberal cause

The recent treat which Mr. Joseph Beecham, Mayor of St. Helens, gave to 800 school-children has had such a beneficial effect on the attendance at the schools that his Worship has offered "a full-attendance medal" to every scholar who does not miss a single attendance during the next term. Mr. Beecham will also provide for the winners of these medals, and a limited number of the most regular attenders, an entertainment of some kind during the winter holiday.

# Marriages.

Gamble, pharmaceutical chemist, 7 Vere Street, W., to Nancie Townley.

MAIN—BURGESS.—At Laurencekirk, on August 10, by the Rev. W. L. Walker, assisted by the Rev. A. M. Scott and the Rev. Wm Murray, John Main, chemist and druggist, late of Johannesburg, to Nellie, youngest daughter of James and Elizabeth Burgess.

SOMERVILLE—CHRISTIE.—At Edinburgh, on August 14, by the Rev. David Hay, George Somerville, chemist and druggist, to Isalinn Christie, niece of the late Inspector James Christie, Edinburgh.

WILSON—HUTCHINGS.—On August 8, at Reading, Francis Charles Isham Wilson, chemist and druggist, to Elizabeth (Lizzie), eldest daughter of the late John Hutchings, of Wallingford, Berks.

## Deaths.

GLANVILLE.—On July 17, Mr. Francis Glanville, chemist and druggist, Fulham Road, S.W. Aged 75.

GOULD.—On July 24, Alderman Frederick Gould, chemist and druggist, King-ton-on-Thames. Aged 84.

LAMPLUGH.—At Bridlington, on August 3, Mr. Robert Wright Lamplugh, chemist and druggist. Aged 24.

SMITH.—On August 5, Mr. Walter Woodhouse Smith, chemist and druggist, Doncaster. Aged 33.

WATT.—At Dunbar, on August 10, suddenly, James, elder son of the late Mr. James Watt, jun., pharmaceutical chemist, Haddington. Aged 6.

WILKINSON.—At Edgbaston, Birmingham, on July 20, Mr. Charles Wilkinson, chemist and druggist. Aged 70.

IT IS PROPOSED to nominate Professor Ramsay, the discover of argon, as the first professor under the Tata Research University scheme.

On the iodine exports from the port of Tocopilla, Chili, in 1899, \$69,040 ( $$1=1s.\ 6l.$ ) was paid in export-duties. From Pisagua 1,230 quintals were exported.

# Legal Reports.

#### High Court Cases.

RENDELL v. REECE & Co.

In the Chancery Division of the High Court of Justice on August 10, before Mr. Justice Cozens-Hardy, Mr. Eve, Q.C., said he had to move, on behalf of the plaintiffs, for an injunction to restrain the defendant company from passing off certain medicated goods as and for the goods of the plaintiffs. Mr. Stokes appeared for the defendants, and said his clients bought only one parcel of goods from a traveller, without knowledge that they infringed the rights of the plaintiffs. The parcel cost but £0s., and he was willing to submit to a perpetual injunction without costs. Mr. Eve, Q.C., said that, on consideration, his clients might take a perpetual injunction without costs, and his Lordship thereupon granted an injunction as asked for until the trial of the action, and made the costs costs in the action, leaving it open to the plaintiffs to accept the offer of the defendants to submit to a perpetual injunction without costs,

#### Indecent Advertisements Act.

MR. THOMAS BARKER HIEST, head of the firm of King & Co., specialists, Bradford, was fined 3\(lleft) and costs, at the Gainsborough Police Court on August 9, for causing to be affixed on the gateposts of certain premises indecent advertisements relating to articles sold by the firm.

#### Shop=fixtures.

AT Leeds Assizes on August 8, damages for the alleged conversion of shop-fixtures were sought by Mr. Charles Modgson and Mr. John Garnett, of Morley, from Messrs. Needhams (Limited), chemists, Huddersfield. Plaintiffs are trustees and executors under the will of the late Matthew Auty, who was for many years in business as a chemist at 1 Queen Street, Morley. After Mr. Auty's death there was a succession of tenants, and it was always understood the fixtures belonged to the landlord. The defendants occupied the shop for some time, and on the completion of their tenancy stripped the shop. Eventually the fixtures were returned, but in a bad condition.

Mr. Justice Ridley decided in favour of the plaintiffs for

101., but declined to allow High Court costs.

#### Sale of Food and Drugs Act.

SWEET SPIRIT OF NITRE.

At Long Eaton Petty Sessions on August 7, George Walters, provision-dealer, was fined 20s and costs for selling sweet spirit of nitre deficient in quality.

## MILK OF SULPHUR AND CAMPHORATED OIL.

RICHARD JUDD, a manufacturing chemist, of 98 Grange Road, Small Heath, Birmingham, was summoned at Tamworth on August 14, for selling milk of sulphur adulterated with 49 per cent of sulphate of lime, and camphorated oil adulterated with 95 per cent. of mineral oil, and which contained only 10 per cent. of camphor. The defendant, it was stated, does a large business with small shopkeepers, and in consequence of an opinion expressed by the Magistrates in a charge brought against a shopkeeper in March last, to the effect that the manufacturer ought to be summoned, a shopkeeper was employed to order from defendant two dozen penny boxes of milk of sulphur, and two dozen penny bottles of camphorated oil. By way of defence, Mr. Judd urged that he had sold the articles for forty years without any complaint having been made. He argued that the sulphate of lime would strengthen the stomach, but Dr. Joy, one of the Magistrates, would not accept this proposition, saying it would choke up children's bowels. Defendant further stated that he did not sell camphorated oil, but "embrocation," and that he was protected by the statement on the labels that the articles were mixtures. The defendant was fined 10l. and costs in the first case, and 5l. and costs in the second.

#### County Court Cases.

A PARTNERSHIP DISPUTE.

In the Westminster County Court on August 10, Judge Lumley Smith, Q.C., tried the case of Jouret v. Turner, in which the plaintiff, carrying on business as a chemist at Howland Street, Tottenham Court Road, sued the defendant to recover 62l. 10s. alleged to be due to him. The plaintiff said he and Turner were formerly partners in connection with a patent, and for the purpose of carrying on the business they had to purchase a machine. Subsequently the partnership was dissolved, and the machine was sold by mutual consent for 250l. Of that sum 125l. was paid down to defendant, and he duly paid witness his share; but he afterwards received the balance, and had not paid over the share of that sum. The defence was that the half of the second 125l. had been paid away by the defendant in respect of a partnership debt, but his Honour held that the defendant had no right to do so, and gave judgment for the plaintiff for the amount claimed, with costs.

#### CHEMIST AND CUSTOMER.

At the Crewkerne County Court last week, before His Honour Judge Philbrick, Q.C., Mr. James Keeble, chemist, Crewkerne, sued H. J. Edwards, of Parkstone, Dorset, for 8l. 14s. 6d. for goods supplied. The Judge made an order of committal for thirty-five days, the order to be suspended if the amount was paid in two monthly instalments.

# Bankruptcies and Failures.

Re Harry J. Ison, Shrewsbury, Chemist.

Last week, at the Shrewsbury County Court, an order was made on behalf of this debtor for the confirmation of a composition in bankruptcy, under which the debtor offered to pay 10s. in the pound. Permission was also granted for the furniture and other offects in the house to be made over to the wife of the debtor.

Re Charles Mark Palmer Cockings, Chemist and Druggist.

The public examination of this debtor was resumed at the Rochester Bankruptcy Court on August 13. The business has recently been sold by the trustee (Mr. Edward Allen) to Mr. Green, of High Street, Rochester, chemist and druggist. Debtor considered the business worth 500l. Hrs profits had been 6l. or 7l. per week. At one time, debtor stated, he was studying to pass his examinations, and it was during that time that a great deal of expense was incurred, owing to having to employ a skilled manager and an assistant. He admitted that he bad never looked into his affairs in order to ascertain his position, nor did he consult his creditors at any time in reference to the same. The examination was concluded

Re John Henry Temple, 62 St. George's Road, late 11 Witham Kingston upon Hull, described as a Chemist.

The public examination of this debtor took place on August 13 at Hull. The debtor, who ascribes his present position to bad trade and insufficient capital, started business in April, 1899, without any capital of his own. He borrowed 550% to enable him to purchase the business, which was then in liquidation, and on June 7, 1900, he assigned the business to his creditor from whom he had borrowed the 550%, in consideration of this debt. Asked by the Official Receiver if he did not think at the time it was rather an unfair thing to do with regard to his other creditors, debtor said he did. Ho declined to sign the deed of assignment, but was eventually persuaded to do so, really against his will. The Registrar (Mr. Rollitt): Has he any estate? The Official Receiver: Not a penny-piece, sir, and could not pay a penny for some gasfittings, which have been removed. The liabilities are said to be 95%, and there are no available assets. The case was concluded.

APOLLINARIS INJUNCTION.—The Apollinaris Company (Limited) have obtained an injunction restraining the American Mineral-water Company (Limited), of Waukesha, U.S.A., from putting up or selling a mineral water under the name "Almanaris," with labels so like those of "Apollinaris" in colour and arrangement as would tend to deceive the public. The injunction is to continue until the further order of the Court, awaiting the outcome of the suit now pending.

# Gazette.

#### Partnerships Dissolved.

Webb, G. F., and Lovely, C. N., under the style of Webb & Lovely, Dawlish, Devon, surgeons, apothecaries, and accoucheurs.

#### The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDERS.

Blackmore, Charles Herbert, Sheffield, herbalist.

**Downing, Thomas Evenry**, Llanllwchaiarn, Newtown, Montgomeryshire, druggist and grocer.

Villain, Paul, Manhattan Mansions, Holloway Road, N., and Goswell Road, E.C., soapmaker and managing director of the Patriotic Soap Company (Limited).

#### ADJUDICATIONS.

Berdoe, Francis Kavier, and Hopkins, Harry, otherwise known as Harry Leigh Hopkins (described in the receiving order and trading as Berdoe & Leigh), Oxford Street, W., manufacturing chemists.

Haley, Percy, Lancaster, aërated-water mauufacturer.

Lyddon, Charles, Oldbury, Worcestershire, surgeon.

# Deeds of Arrangement.

Tingley, Edward, 12 Two Gates Terrace, and Robert Tingley, 26 Essex Street, and trading at Norfolk Street Scapworks (all Darwen) as Edward Tingley & Son, soapmakers. Trustee, Thomas Hindle, Darwen, chartered accountant. Dated, August 1; filed, August 7. Liabilities unsecured, 695l. 15s. 6d.; estimated net assets, 100l. The following are some of the creditors:—

		£	8.	d.
Brunner, Mond & Co., Northwich	***	38	0	0
Kay, A., Darwen		100	0	0
Ormerod Brothers, Rochdale		50	0	0
Tingley, J., Blackburn		323	0	0
Walmsley, P., & Son, Preston		37	0	Ω

Wilkinson, William, 28 Bury Old Road, Crumpsall, Manchester, pharmacentical chemist Trustee, Harry L. Price, 79 Mosley Street, Manchester, I.A. Dated, August 3; filed, August 8. Secured creditors, 90l.; liabilities unsecured, 600l. 5s.; estimated net assets, 156l. 7s. 2d. The following are scheduled as creditors:—

		æ	8.	a.	
Appleby, J., Lincoln	•••	450	0	0	
Binney, — (trustees of), Manchester	•••	60	0	0	
Hearon, Squire & Francis, London		11	0	0	
Jewsbury & Brown, Manchester	•••	13	0	0	
Woolley, Sons & Co., Manchester		96	0	0	

# Mew Companies.

CRIPPIN & Co. (LIMITED).—Capital 2,000l., in 5l. shares Objects: To acquire the business carried on by E. R. Crippin Billinge Road, Pemberton, Lancashire, as Crippin & Co., and to carry on the business of art-publishers, dealers in chemical and photographic apparatus, &c.

CRICHTON'S OIL COMPANY (LIMITED'.—Capital 5,000l., in 1l. shares. Objects: To acquire the business of a company of the same name (incorporated in 1889), and to carry on the business of oil merchants, refiners, and manufacturers, petroleum, resin, tar, lubricant, and liquid-fuel merchants, &c.

Johnson Electro-Germicide Company (Limited).—Capital 2,000l., in 1l. shares. Objects: To adopt an agreement with C. M. Johnson for the acquisition of a patent for improved means of destroying disease-germs, and of the electrical-generating machine and apparatus now standing in the research laboratory at Savoy Street, Strand, and to manufacture and deal in electrical and other apparatus, chemicals, drugs, medicines, &c. The subscribers are to appoint the first directors.

British Silica and Granite Company (Limited).—Capital 7,500l., in 1l. shares. Objects: To manufacture and prepare for market, among other things, oil, silica, granite, fullers' earth, and chemicals. Registered office, 22 St. Mary's Gate, Manchester.

London Mutual Stores (Limited).—Registered with 500 members, each liable for 1s. Objects: To deal in goods and merchandise of every description, including (inter alia) photographic apparatus and chemicals. The management is vested in a council. Registered office, 21 Baker Street, Portman Square, W.

Knowle's Esauline (Limited).—Capital 3,000*l.*, in 5*s.* shares. Objects: To adopt an agreement with the London and Provincial Mining Corporation (Limited) for the purchase of a secret process for the manufacture of a commodity known as "Esauline," "an approved specific for forcing the growth of hair." Registered without articles of associatiou.

ABBEY GLASSWORKS (LIMITED).—Capital 600l., in 1l. shares. Objects: To acquire the business carried on at 13 Hickman's Folly, Dockhead, S.E., as "John T. Valc," to adopt an agreement with the Natural Food Company (Limited), and to manufacture and deal in glass jars and bottles, stoppers, pharmaceutical appliances, &c. The first directors are P. Tyrer, H. F. Snow, E. Manwaring, and L. J. Dodman.

Gallow Hill Glue and Chemical Company (Limited),—Capital 40,000*l.*, iu *ll.* shares. Objects: To acquire the business of the Gallow Hill Glue and Chemical Company (Limited) (incorporated in 1893), to adopt an agreement with the said old company and R. Mellors, and an agreement with H. S. Garry, and to carry on the business of glue and chemical manufacturers, &c. The first directors are S. Symington, J. Clark, J. B. Meggitt, and H. A. Meggitt. Qualification, 100*l.* Remuneration, 50*l.* each per annum.

Sheffield Chemists' Aërated-water Company (Limited).—Capital 5,000l., in 5l. shares. Objects: To acquire the business carried on at Montford Road, Sheffield, as the Sheffield Chemists' Aërated-water Company, to adopt an agreement with C. A. Gardner and J. Gardner, and to carry on the business of mineral-water and cordial manufacturers and merchants. The first subscribers are: C. A. Gardner, 106 Southgrove Road, Sheffield, chemist; J. Gardner, Bolton-upon-Dearne, surgeon; Mrs. I. Gardner, Sheffield; B. Sweeten, Mexborough, surgeon; Mrs. M. Green, Sheffield; Mrs. M. J. Gardner, Bolton-upon-Dearne; and J. E. Bartlett, Sheffield, accountant. Registered office, 1 Carver Street, Sheffield.

Livingstone College (Incorporated 1900).—Registered with 100 members, each liable for 1l. Objects: To take over the Livingstone College, for the residence and education of persons who are, or intend to become, missionaries, and in particular for their instruction in the elements of practical medicine and surgery. The first subscribers are: C. F. Harford-Battersby, 14 Earlhan Grove, Forest Gate, M.D.; J. Cundy, Southborough Park, Surbiton; J. W. Rundall, M.I.C.E., 1 Park Hill, Ealing, W.; H. Lankester, M.D., Ingleborough, Woking; R. L. Barclay, 54 Lombard Street, E.C., banker; A. Carless, 10 Welbeck Street, W., M.S., F.R.C.S.; and W. McAdam Eccles, 124 Harley Street, W., M.S., F.R.C.S. Registered office, 133 Salisbury Square, E.C.

# Medical Gleanings.

#### DIPSOMANIA ELIXIR.

Apomorphine		•••	gr. iij.
Tincture of calumba			₹j.
Tincture of capsienm			mxv.
Tincture of nux vomica			3i.
Compound tineture cinch	ona		žiss.
х.			

A teaspoonful to be taken after meals in a little water. —  $Cronica\ Medica$ .

#### BRONCHITIS PILL.

Terpinol	•••	• • •	•••	gr. ij.
Sodni benzoatis		•••	• • •	gr. ij.
Sacch. lactis	•••	•••	• • •	qs.

Ft. pil.

From six to twelve pills to be taken daily.

-Medical Times

#### DIABETIC DRINK.

Acid. citrici	• • •	• • •	•••	3j₊
Glycerini	•••	•••		žj∙
Spt. vini gallici		•••		3ss.
Ag. destil. ad				žxvi

M.

# Essential Oils.

#### Modern Methods for their Physical and Chemical Examination.

By EDWIN DOWZARD, F.C.S.

CHEMICAL METHODS OF EXAMINATION.

THE following methods are of great use in commercial analysis, as they afford a means forthe determination of the more important constituents and the detection of bodies indicative of adulteration:—(1) Saponification (determination of esters); (2) acetylisation (determination of alcohols); (3) estimation of aldehydes hy the bisulphite method; (4) estimation of phenols hy the caustic-potash process; (5) estimation of eugenol by Thom's process; (6) estimation of cineol by the phosphoric-acid process; (7) detection of pinene by the formation of its nitrosochloride compound; (8) detection of phellandrene by the formation of its nitrite compound.

Determination of Esters by Saponification.—The saponification value or number is the number of milligrammes of potassium hydrate required for the complete saponification

of 1 gramme of oil.

Two to 4 grammes of oil—according to the amount of ester present—are mixed with 10 c.c. of semi-normal alcoholic potash in a flask of about 150 c.c. capacity, provided with a vertical condenser. The mixture is heated on a water-hath for thirty minutes. When cool a little water is added, and the solution titrated with scmi-normal sulphuric acid, using phenol-phthalein as an indicator; the amount of ester is calculated from the amount of potassium hydrate used. The percentage of acetic esters of the alcohols having the common formulas  $C_{10}H_{18}O$  (geraniol, linalol, horneol) and  $C_{10}H_{20}O$  (menthol, citronellol) may be calculated from the following:-

$$\begin{split} & \text{Alcohol} \ C_{10} H_{18} O \begin{cases} \frac{196 \times \text{sap. value}}{56} = \text{per cent. of ester.} \\ \frac{154 \times \text{sap. value}}{56} = \begin{cases} \text{per cent. of alcohol in} \\ \text{the form of ester.} \end{cases} \\ & \text{Alcohol} \ C_{10} H_{20} O \begin{cases} \frac{198 \times \text{sap. value}}{56} = \text{per cent. of ester.} \\ \frac{156 \times \text{sap. value}}{56} = \begin{cases} \text{per cent. of alcohol in} \\ \text{the form of ester.} \end{cases} \end{split}$$

The Determination of Alcohols by Acetylisation.—Ahout 20 grammes of the oil are mixed with an equal volume of acetic anhydride and 2 grammes of anhydrous sodium acetate. The mixture is gently hoiled for one hour. After cooling, the oil is washed with warm water and very dilute soda solution, and subsequently dehydrated by agitating it with anhydrous sodium sulphate. From 2 to 4 grammes of this dry oil arc hoiled with an excess of semi-normal alcoholic potash; the quantity of potash used is then determined by titration with semi-normal sulphuric acid.

The percentage of alcohols having the common formulas C10H18O and C10H20O may he calculated from the follow-

ing:-

Alcohol 
$$C_{10}H_{18}O$$
  $\frac{a \times 15.5}{s - (a \times 0.042)} = \text{per cent. of alcohol in the original oil.}$ 

Alcohol 
$$C_{10}H_{20}O$$
  $\frac{a\times 15\cdot 6}{s-(a\times 0\cdot 042)}=$  per cent. of alcohol in the original oil.

a = number of cubic centimetres of normal (not semi-normal)potash used.

s =the weight in grammes of the acetylised oil used.

The Estimation of Aldehyde by the Bisulphite Process.-A glass flask is required of about 200 c.c. capacity, with a neck ahout 20 cm. long and 15 mm. internal diameter, which is divided into fifths up to 25 c.c.\*

Twenty to 25 c.c. of the oil to be examined is measured with a pipette, and allowed to run into the flask, which is placed in hoiling water. Small quantities of sodium-hisulphite solution (30 per cent.) are then added, waiting after each addition until the solid mass first formed has become partly fluid. The heating is continued until there floats on the surface a layer of clear oil sharply defined against the solution. The flask, which should now contain about 150 c.c. of liquid, is removed from the water-hath, allowed to cool, and filled up with hisulphite solution until the oil has entirely risen into the neck. This oil consists of the non-aldehydes, whose volume has to be subtracted from the amount of oil taken. The difference shows the amount of aldehyde.

The Determination of Phenols by the Caustic-potash Process.—The amount of phenols present in an oil may he approximately estimated as follows:-Ten to 25 c c. of the oil to be examined is measured with a pipette, and allowed to run into a flask (the same as that recommended for the estimation of aldehydes), which is then half-filled with 4-per-cent. caustic-potash solution. The mixture is agitated, and heated to ahout 60° C., and the flask finally filled with 4-per-cent. potash, until the non-phenols rise in the upper portion of the neck, the graduations of which show the quantity present. This method was first proposed by Umney.

The above is, however, a slight modification of his process.

The Determination of Eugenol by Thom's Process.—Five grammes of the oil are treated with 20 grammes of causticsoda solution (15 per cent.) and 6 grammes of benzoyl chloride. The mixture is agitated, allowed to cool, and then treated with 50 c.c. of water; the mixture is now heated until the crystalline compound has become liquid, when it is again cooled. The whole is then transferred to a filter and the residue washed with water, heating and cooling at each washing. The crystalline mass is now treated with 25 c.c. of 90-per-cent. alcohol, heated on a water-bath, cooled, and filtered; the filtrate and washings with 90-per-cent. alcohol should measure 25 c.c. The benzoyl eugenol is then dried at 70° to 80° C., and finally at 100° C., and weighed. A correction of 0.55 gramme must be allowed for the amount of benzoyl eugenol dissolved in the alcohol. The weight is then multiplied by 0.612, the result being the amount of eugenol.

the Estimation of Cincol by the Phosphoric-acid Process. Ten grammes of the oil under examination are placed in a porcelain basin, which is surrounded with chopped ice; 4 c.c. of phosphoric acid (sp. gr. 175) are next gently poured down the side of the vessel, the whole being allowed to stand for about five minutes; the mixture is then well stirred, and allowed to stand for fifteen minutes, kneading the mass occasionally; the pasty mass is then transferred to several thicknesses of filter-paper, and quickly pressed; the partially dry mixture is then scraped off, and again pressed; this is repeated until the cake is dry and friable; it is then weighed, and the weight multiplied by 0.611, the result being the amount of cineol present in 10 grammes of oil. In the case of oils containing 20 to 30 per cent. of cineol three to four pressings will be required, oils containing from 45 to 60 per cent. only require from two to three pressings. (Before suhjecting the cake to the final pressure, it is advisable to reduce the mass to a coarse powder by means of a small pestle.) I am in the habit of using an ordinary office-press, and have found it to answer the purpose very well.

Detection of Pinene in Essential Öils.—Twenty c.c. of the oil is distilled very slowly, the first 2 c.c. being collected; to this liquid are added 7 c.c. of amyl nitrite, then 4 c.c. of glacial acetic acid; after immersing the mixture in ice and salt, a mixture of equal parts of glacial acetic acid and concentrated hydrochloric acid is added, drop hy drop, with constant stirring, so long as the liquid acquires a blue colour. If pinene is present, a white crystalline precipitate of pinene nitroso-chloride (C<sub>10</sub>H<sub>16</sub>NOCl) will gradually be produced (melting-point 103° C.).

Detection of Phellandrene.—One c.c. of the oil under examination is mixed with 2 c.c. of glacial acetic acid and 2 c.c. of a saturated aqueous solution of sodium nitrite; the mixture is then gently shaken. If phellandrene is present the oil will form a more or less solid crystalline mass.

By Baker and Smith's method of testing for phellandrene no green colour is produced in pure globulus oil, but a dull green colour is obtained by the B.P. test (C. & D., vol. liv., No. 983). Baker and Smith show that the green colour given by oils when subjected to the nitrite-test of the B.P. is traceable to the pinenes present, and that the predominance of dextropinene in an oil gives a stronger reaction than when lævopinene is in excess.

<sup>\*</sup> These flasks may be obtained from Baird & Tatlock, London.

# Corner for Students.

#### THE JULY MINOR.

#### EXPERIENCES OF SUCCESSFUL CANDIDATES.

1. Behold! a row of human beings more or less in a state of combustion and ignition—genus *Homo*, var. Student; habitat, 17 Bloomsbury Square—about to be submitted to standardisation,

and reduced to empirical formulæ.

My first subject was chemistry. A couple of calculations were handed to me to solve, the first relating to temperature, the second to the rates of diffusion of certain gases. No, I need not trouble about the arithmetic, said my examiner, if I would just explain my method of procedure. Next my attention was directed explain my method of procedure. Next my attention was directed to a barometer standing on the bench; Did I notice anything peculiar about it? Yes, I was correct; in addition to mercury there was a little water in the tube. What effect had that? What was the tension of aqueous vapour? Describe an air-pump; a Sprengel pump. What is acetamide? Wherein do amines and amides differ? What was phenyl amine? How is aniline made? also nitrobaryane. A short grantless require the baryane right. also nitrobenzene. A short gyration round the benzene ring, and then I was questioned as to compound radicles; thence, by way of ammonium, nitrogen, ammonium nitrite and nitrate, on to the oxides of N. The Stassfurt deposits next claimed attention, partioxides of N. The Stassfur deposits next claimed attention, particularly in reference to Mg. How should I prepare a sample of pure anhydrous MgCl<sub>2</sub>? MgCO<sub>5</sub> and HCl, said I, plunging heedlessly into a trap. "You wouldn't," said he, with a grim smile. Did Mg form any compounds with N? Yes; Mg nitride was quite correct. What use was it put to? Was it used in the isolation of argon? I smiled expressively. "Well, yes," admitted my examiner, "that is possibly outside your syllabus. How is oxalic acid prepared?" I gave commercial and experimental methods, was questioned as to the action of HSO. proprit? Was therefore was questioned as to the action of H<sub>2</sub>SO<sub>4</sub> upon it? Was there any catalytic agent present in this last reaction? What was catalysis? All of which being answered more or less satisfactorily, I was told in reassuring tones that I might return to my

Botany came next. Two slides were shown under the microscope, and I was requested to describe "what I saw." The first was a section of a trilocular ovary with axile placentation, the second that of a somewhat abnormal dicotyledonous stem. I was interrogated about these, and questioned as to differences between di- and mono-cotyledonous stems, and how to distinguish them from roots. I then had to describe the trailing stem and inflorescence of a passion-flower from a specimen placed in my hauds, particular attention being paid to the tendrils-were they leaf or particular attention being paid to the tendrils—were they leaf or branch tendrils? A branch of gooseberry-bush was next inspected, mainly in reference to the spines present—wherein did they differ from thorns? Branch systems and origin of branches was the next topic, in which I floundered somewhat wildly, returning to "the funking-form" in what might aptly be described as "Mal de Square." However, I was quickly passed on to prescription-reading. Several autograph prescriptions had to be read aloud to the examiner, and then I had to write out two or three more in full Latin, all of which was comparatively easy. A long string of doses were asked me, after which I returned to my seat. string of doses were asked me, after which I returned to my seat, wildly conjecturing as to how my "aggregate" was progressing (I had failed on my aggregate in the April exam.).

Pharmacy was the next ordeal. On the table stood a row of tinctures, extracts, and ointments, the mystery of whose compositiou many a student, by nosc and eyes, had that morning endeavoured to solve. But I had no such olfactory tests. "How is ext. nuc. vom. liq. made?" was the first question. Did I know of other preparations of nux?—what were there various strengths? How was syr. ferri. phosph. c. quin. et strych. made? Tinct. opii? Tartarie acid? Pulv. ipecac. co.? Ferri. ammon. cit.?—and various details respecting these preparations. Sublimation and distillation next claimed attention; and then the official injections their structure of the structure of t tions—their strengths, doses, and preservatives. How should I mass pills of potassium permanganate? silver nitrate? creosote?

carbolic acid?

Finally, I went to materia medica. Various boxes of crude drugs were handed me Jaborandi—leaves or leaflets? source, drugs were handed me Jaborandi—leaves or leaflets? source, official preparations, percentage of active constituent, what were the physical characteristics of pilocarpine? Belladonna-root and leaves had next to be recognised. What was the percentage of alkaloids in green extract? "Unstandardised," I answered, cautiously. Well, what percentage should I imagine? Which being solved satisfactorily, aconite and digitalis leaves were shown me, then nux vomica seeds. How should I standardise the solid extract? I briefly outlined the process, and then some hamannelisbark was presented me for recognition. What portions of the plant were official? how was liq. hamanelidis made, and what did the resulting distillate contain?

This completed my examination, and a few minutes later I was

This completed my examination, and a few minutes later I was informed that I had satisfied the examiners, and should receive my certificate in due course.

Extensive tips! numerous telegrams; incoherent congratulatious! mutual hand-shaking! finally the regulation cab! Qualified Gas. (24/65.)

2. "Analysis" had to be done first according to the paper before me. I found "Calcii carb." + "Sodii thiosulphas." The volumetric also was simple. "By means of the iodine solution which contains 3-8 grammes per 100 grammes, state grammes per litre in given thio. solution." The first titration worked out 22-12 grammes, but I only ran in 91 c.c. of thio. solution. The second titration I used 22.6 c.c. and got a result of 22.36 grammes, so iu all probability it was at N/10 solution.

In pharmacy and dispensing the following are what I had:-

	0		
I.			
apone	***	•••	(about 2 oz.)
II.			
•••	•••		gr. vj.
***	•••	•••	q.s.
III.			
***	***	• • •	gr. $\frac{1}{25}$
•••	•••		gr. $\frac{1}{4}$
•••	•••	•••	gr. ij.
itte xv.			
IV.			
	***		3j.
•••	•••	•••	
•••	•••	•••	žviij.
V.			
• • •	***	***	3j.
•••	•••	•••	31ij.
•••	•••		Şij
•••	•••	•••	ǯvj.
	III iitte xv.  V	III	III

Cap. 3ss. ter in die.

Mixture No. IV. I had to graduate the bottle.

Exactly a fortnight afterwards I attended for the second day. Pharmacy came first. Five bottles were placed in front of me for identification, "Tr. Benzoin. Co.," "Tr. Opii," "Tr. Valer. Ammon.," "Ext. Filicis Liq.," "Ext. Cinchon. Liq.," and I was Materia Medica.—In this subject I had for recognition bella-

onna-leaves, digitalis-leaves, stramonium, aconite-leaves, simaruba-bark, Rhamnus Purshiana, Rhamnus frangula; several varieties of opium were shown, also a piece of stone about the size of a hen's egg, but coated c. opium. Its sp. gr. gave the game

away. I had to give several estimation processes.

Botany.—The microscopes for use of the candidates are oldashioned and out-of-date style, not at all conducive to either quick or accurate work. I was asked such questions as "What is transpiration?" "When does it take place?" "By what means?" "In what way do guard-cells differ from the surrounding cells?" "What effect had the guard-cells on the stomata?" ing cells?" "What effect had the guard-cells on the stomata?" I was shown a creeping-plant, known in Hampshire as "Pancakes." "What were those?" he said, pointing to tendrils. "Why are they spiral, not straight? What are the first, twisting one way, then in an opposite direction?" The microscope I have mentioned I used to identify "guard-cells" in a section the examiner cut from a green stem.

Chemistry and Physics.—After questions on the barometer, I was asked about the oxides of nitrogen, and had to write out their formulas. I was asked to define isomerism, polymerisation, allo-

tropism, and give examples.

Prescription-reading.—Three prescriptions I had to read in English, which were not at all difficult; about thirty doses of potent preparations of the Pharmacopeeia, and finished up with writing two prescriptions in Latin. The directions were extremely

I would not like to attempt to remember what my reply to the President was when he told me I had passed, for, to put it mildly, I was in a whirl.

H. H. G. (134/7.)

#### THE MAJOR EXAMINATION.

#### A CANDIDATE'S SUGGESTIONS.

The Major examination is of three days' duration. The first day embraces an hour's written paper in materia medica and a two hours' paper in botany, also an hour and a half at sectioncutting and drawing in botany, and the same in materia medica. . The second day covers three hours' "written" in chemistry and physics. The third is occupied by a six hours' spell at practical chemistry. There was one question only in materia medica, and I do not see how it is possible to test a student's grasp of his hy a single question. I felt disappointed after the months I had spent studying the various alkaloidal drugs with their processes of assay and manufacture, and their commercial varieties, to find that the result would turn on a question that belongs to the Minor rather than the Major syllabus.

Again, with reference to the practical materia medica, are there not enough official drugs that the examiners must give the candidates green leaves unused in medicine to test their knowledge of materia medica;? Fortunately the marks are awarded with a generous hand, otherwise the pass list would discourage

many from entering for this examination.

I should like further to be allowed to remark that, while the system of viva voce questioning during the examination affords a magnificent field for examiners of brilliant wit and sarcastie power, they ought to remember that the candidates are, by the circumstauces of the case, debarred from retort. J. F. H. (131/61.)

#### THE EDINBURGH MAJOR.

It has often been remarked that few think of going up for the It has often been remarked that few think of going up for the Major, and, as a natural result, that very few pass; but the general opinion (of those who do not go in for it) is that it is not worth the extra trouble and expenditure, and that the conferring of the title "M P.S." on chemists and druggists does not tend to increase the number of Major candidates. The outlay of the extra "bawbees" is, of course, the most formidable item to the Seotch mind, but as I did not mind the extra mental strain, and have a soul above money, I decided to once more subject myself last month to the tender mercies of the "powers that be" in York Place. Place.

The first day was spent at practical chemistry, 10 to 4, with twenty minutes for lunch. The first item on the programme was a powder for analysis. This made me feel quite at ease, as I had had excellent practice during the winter in the C. & D. competitions, although I was never brilliant enough to get a prize, Dr. Dobbin, who conducted this part of the examination, said "Now, gentlemen, you will require three hours if you are to do the work thoroughly and systematically." We were left to work in peace till 1 o'clock. On completing the "dry" tests I had found Pb, Hg, Sb, NH,Cl. The antimony I got by the film tests—black metallic of the which did not discuss a classic of the production of the productio metallie film, which did not dissolve in solution of chlorinated lime, and which was not dissolved by dilute nitric acid. I observed the lead and mercury as rings of film outside the antimony spot. The oxide film, treated with a few drops of AgNO<sub>5</sub>, and the vapour of ammouia blown over it, turned black, so I was sure I had antimony. In the "wet" tests I could get no trace of antimony nor anything more than the four radicles already found.

In looking over my report Dr. Dobbin said, "I see you've got

antimony here; do you think there is antimony in the mixture or do you not?" I said, "No." He then gave the following explanation of my peculiar results in film-testing:—

"What would happen if you put mercury into a solution of

silver nitrate?" he asked.

"Mereury would replace the silver, and metallic silver deposit." "Yes; and what would happen to the mercurous-nitrate solution on adding ammonia?"

"The black metallo-amine, NH<sub>2</sub>Hg<sub>2</sub>Cl, the analogue of white precipitate, would be formed."

"Well," said he, "that's just what has taken place. Your film-

test is no use in the presence of mercury."

I asked him what else was in the mixture, and he replied: "Nothing. Your mixture may consist of not more than

"Nothing. Your mixture may consist of not more than three salts, but it might consist of less."

I was next supplied with six small tubes, each containing an organic compound, the examination of which was to occupy the remainder of my time. At this juncture Mr. Rutherford Hill came in and said luncheon was ready, so we stopped work and adjourued. He took lunch along with us, and kept up a running fire of jokes and witticisms the whole time. If Sydney Smith had been present he would probably have endorsed his hackneyed observation about a Scotchman and a joke, for we only managed to smile gloomily. I was wondering how to proceed with the analysis of my six salts, as I had not analysed any for months. However, when 4 o'clock came I had five of them finished. Dr. Dobbin was very considerate, and said he would wait a few minutes. The sixth was the sulphate of an alkaloid, but I could not get the tests for any particular one, so concluded that it must be atropin. sulph. The others were morphine, morphine acetate,

the actoring strychnine hydrochloride, salicin.

The forenoon of the second day was devoted to a written examination in botany and materia medica. In the afternoon we had practical work in these subjects. In materia medica I was supplied with a huge fresh digitalis-leaf. I cut, mounted, and sketched a transverse section, drawing attention to (1) numerous three-celled hairs, some having their end-cells swollen into glandular knobs, pretty equally distributed ou upper and under

surfaces; (2) absence of crystals (simple or compound); (3) palisade parenchyma but little developed and entirely absent above the midrib and larger veins; (4) veins very prominent on under-surface displaying large thin-walled cortex with bundle in the centre showing xylem above and phlocm below. I was next given a small box containing a green powder labelled "Pulv. digitalis." I mounted some, and after examining and sketching the fragments of powder in the field of the microscope, I concluded that it contained no digitalis at all, and reported somesomething like this:-

Observed-I. No three-celled hairs, but a few hairs consisting of one long tapering cell.

II. A few small crystals (of calcium oxalate). III. Too much palisade tissue for digitalis.

IV. A small fragment of epidermis which was hairless.

Inference:-No digitalis in the powder.

I was of opinion that the powder was senna, so I steeped a bit of the leaf in water, intending to strip off a piece of the epidermis and compare it with the fragment of epidermis found in the powder; but Mr. Boa told us to stop, so that finished materia medica. In practical botany, under Professor Balfour, I was complied with the free free engineering. supplied with three fresh specimens. Specimen A was a young oak, about 9 inches long, with the acorn still attached, containing the two white fleshy cotyledons, which looked as if they still contained some nourishment. Specimen B was a species of Delphinium (D. Belladonna), which I referred to its untural order, giving reasons. Specimen C I referred to Nat. Ord. Polygonaceæ. I cut, sketched, and described transverse and longitudinal sections of Specimen D. It was a young dicot. root. Small central stele. No pith. Lurge cortex, containing bast fibres in interrupted concentric circles (same appearance as the latiferous tissue in a section of dandelion-root). This concluded latiferous tissue in a section of dandelion-root). This concluded the second day's work. The third day was spent answering the questions set in chemistry and physics. When the day was done a friend took me aside.

"I understand," said he, "that you are a bit of a botanist?"

I admitted the soft impeachment.

"Do you know a 'dockan' when you see one?"

"Yes, I think I do."

"Well, what makes you put Sanguisorba into the Polygonacea? Where did you ever see a plant of that natural order with a compound leaf? The best of the joke is," he continued, "you all seem to have made the same mistake." If the occasion had not been so solemn I might have felt inclined to laugh. My friend laughed. However, the certificate came all right. The examination was not quite as stiff as I expected, and ample time was allowed for each subject. The examiners were, without exception, most courteous and pleasant, and did their utmost to help P. I. (147/49.) us and put us at our ease.

# The Pharmaccutical Aviary.

#### The Bark Bird.

This splendid bird is one of the Howardus strat-fordii. When not engaged, as the artist represents it, in boring into Peruvian bark, it is found perehed in the neighbourhood of the Queen's statue in the eentre of the City marketplace. It has never been known to eackle, but chirps in a pleasing way, the notes resembling "Kwin-ne(n." resembling "Kwin-necn."
The other birds look up to it, and do not tease it. It has beautiful glossy black feathers, and, unlike the genus Canis, its bark is better than its bite. This is a somewhat rare accomplishment in the Aves, but the whole of this genus has recently migrated from Barking to its Stratford habitat. It varies its Peruvian diet Ιt with bismuth, mercurials, and soda.



# Observations and Reflections.

By XRAYSER.

PHARMACEUTICAL RESEARCH is indeed on the top of the wave just now. Presidents and ex-Presidents of the Pharmaceutical Society are astonished, if not indignant, if even a question about the 20,000l. research laboratory is asked. "We are all cognisant of the work that is being done," was the reproachful reply given by Mr. Newsholme to a question put by Dr. Symes last week at the Council-meeting. Now on the heels of that announcement comes a first instalment of Pharmacopæia-work from Professor Greenish, dealing with the solubilities of the halogen salts of ammonium, potassium, and sodium. This is described as a "report of experiments made in the East Research Laboratory of the Pharmaceutical Society of Great Britain." The East Research Laboratory! How many have they got, then? It may be assumed that there are at least four; and if work is being done in all of them as conscientiously and as minutely as it is evidently being carried on in the East Laboratory, we are going to have a Pharmacopœia next time which will challenge comparison with Euclid for exactitude.

PROFESSOR GREENISH is merciless in his accuracy. Not only are such expressions as "slightly soluble" and "readily soluble" to be banished from future Pharmacopeeias, but he wants to have such terms as "cold water" defined. A difference of 1° F. may mean a difference of one five-thousandth in solubility, he tells us. He has certainly spotted a distinct oversight in such an expression as that ammonium chloride is soluble in "3 parts of cold water and 60 parts of alcohol." What are parts? No definition applicable to this case is given in the Pharmacopæia. Parts by weight of solids, and parts by volume of liquid, is what most of us assume. That is satisfactory for water, but when it comes to alcohol there is considerable discrepancy. If a substance is said to be soluble in 50 parts of alcohol, that means either that 1 gramme is soluble in 50 c.c. of alcohol, or that 1 gramme is soluble in 50 grammes, which is 599 c.c., of alcohol. Of course a Pharmacopæia ought to be definite and correct; only when the era of this minute accuracy has been with us for a few weeks a bitter cry for a little more latitude will certainly ensue.

MR. LORD GIFFORD'S announcement that he "has been singular in insisting that the Lord Chancellor was always our very good friend" is news. He has, at least, not paraded his gratitude to his noble friend. In a letter to this journal, published on April 8, 1899, Mr. Gifford said the Lord Chancellor "regards chemists as traders whom it is desirable to regulate. We, on the other hand, think the requirements of the State involve the acknowledgment of a professional status. These views are incompatible." And the awkward part of it is that the Lord Chancellor is more nearly accurate in his view of the drug-trade than Mr. Gifford is. It is no use going about and declaring to each other that pharmacy is a profession and should be treated as such. Even if an Act of Parliament were passed declaring it to be one, this would not affect the fact any more than a resolution passed by the International Pharmaceutical Congress can-that is, so long as we attach the same meaning to the word "profession," as distinguished from trade, as that which is generally accepted.

Profession, says the "Century Dictionary," "implies professed attainments in special knowledge, as distinguished from mere skill; a practical dealing with affairs, as distinguished from mere study and investigation; and an application of such knowledge to uses for others, as distinguished from its pursuit for one's own purposes." It also implies, I think, that this knowledge is made use of for gain. Briefly, it would seem that the professional man is paid for the use of his knowledge exclusively, while the tradesman is paid for his goods, but is expected to give with them some expert knowledge. Mr. Gifford and his friends ("I and my committee") urge strongly that they ask for nofavour as traders, but only demand that the professional element in pharmacy should be defended against unqualified companies. Disabuse the minds of M.P.s of the trade bogey, Mr. Gifford says, "and all difficulty disappears." No doubt. Divide the bone and marrow and treat the patient as if he had the marrow only, and you will effect a cure. The reply to Mr. Gifford is best given in the words of an authority whose wisdom he will certainly recognise:-"An argument may be very good, may be very admirable, and even impressive, yet if the premises upon which the argument is based be at fault then the conclusions are valueless." That sentence is a quotation from his own letter.

BOTANISTS are not easy people to dispute with; they are always so dead certain. I have been extinguished by them often, so it gives me pleasure to get in a little return. I get my material from Dr. Attfield's "Digest of the Criticisms of the Pharmacopæia." Among the articles published on that work was one on its botanical nomenclature by Mr. G. C. Druce. One of his comments referred to cambogia. which the B.P. describes as from Garcinia Hanburii (after Daniel Hanbury). Mr. Druce pointed out that the original spelling by Hooker was Hanburyi. In that form it appeared in the Journal of the Linnaan Society and in the Kew Index. Mr. Holmes, to whom this criticism was submitted, replies that the official form is the more classical, is in accord with De Candolle's and Sprengel's principles, and that there is a genus Hanburia in which the y gives place to i. Good! though classical beauty has not hitherto had much influence with botanis's. But a little later we come to copaiba "obtained from the trunk of the Copaifera Lansdorfii." Now it appears that the botanist after whom this variety was named was Baron Langsdorff, and Sir Thiselton Dyer was asked whether the official spelling being wrong the name should not be corrected. "Certainly not," suid he; "Desfontaines gave the specific name Lansdorfii, and so, according to botanic usage, it must remain. No one has any business to alter it. Very likely the man's name was Langsdorff, but that does not affect the question." Therefore, if the name was given correctly in the first place we may alter it to make it, as we think, more classical; but if it was originally spelt inaccurately it must so remain for ever.

"THE DRUGGIST'S CLERK" is the title of a short story in the Century Magazine for August, by Laura E. Richards. The pharmacy was an up-to-date one, and the "shop smelled of cassia, quinine, and many other things—a clean, connotative smell." The quinine probably gave it the "connotative" smell. The bottles were labelled Spir. Canthar, Aq. Test., Guiac., &c. "There was a whole romance of mystery in that one word" Guiac, we are told. A youth was in charge while the boss was gone to his dinner. The lad was reading Theocritus, when an old nurse came in and interrupted his She wanted some medicine for a neighbour's sick She prescribed herself: one ounce of spirit of lavender, one ounce of ether, and two ounces of "rheumatic" spirits of ammonia. Laura does not say if this was for a single dose, but this was not of much consequence. A teaspoonful would have settled the baby as well as the lot. Directed by his customer, the inexperienced compounder measures the ammonia from a bottle labelled "Tinet. Aconite-Poison," and only awakes to the fact after the nurse has gone, which way he knows not. He contemplates suicide, and his remorse and terror bulk out the narrative. Ultimately the nurse brings the medicine back, and asks for the fifty cents she paid for it to be repaid. When she got back to her neighbour's house the child was better, and the mother objected to pay for medicine which she did not

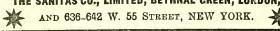


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# Editorial Comments.

# Chemists and Parliament.

The prospect of a further appeal by pharmacists to Parliament next year lends a certain interest to the prevailing prognostications of a general election in the autumn. Some among us consider that if we can agree on what we want, and frame our desires in a Bill before the election comes on, we shall in a sense hold the key of the position. Some one or more of our fifteen thousand is to present that Bill to every candidate, demanding his promise to support it as a condition of our votes, with the result that the next House of Commons will be pledged to obey our mandate. How easy it seems! The only problem of the situation remaining to be settled is the degree of moderation we need show.

We have met with this sort of logic before: it comes from North-East Lancashire. Its fallacy needs no demonstration. There is, first of all, no chance of unanimity of action on the part of chemists; nor, if the whole fifteen or twenty thousand of them could be induced to act as one man, could they exercise any such influence as would be required. The registered chemists of the United Kingdom number some seventeen thousand. All of these are not voters, but if we add to them the wholesale druggists and all connected with the trade, we should not be able to reckon on more

than a voting-power of twenty thousand—an insignificant proportion of the whole electorate, which at the present moment numbers on paper 6,732,613; that is to say, chemists count for rather less than one three-hundredth part of every constituency on the average, and only a small fraction of this fraction—only the very loyal fragment—will sacrifice all their other political convictions for the sake of a remotely possible pharmaceutical advantage. But if they all did, the result would be very shadowy. Most candidates will promise a good deal to "a deputation" in order to get through the education which the deputation comes to give them as easily and as quiekly as possible; but the promise will be sure to be a conditional one, and when the time comes for redeeming it the one three-hundredth will be appraised at its exact value.

But while deprecating exaggerated and fanciful anticipations of what can be done in the way of influencing candidates, we are far from arguing that a general election offers no opportunity for helping on legislation in which we are directly concerned. It is obvious that it is an occasion for discreet pressure. Candidates' promises are not pledges with much substantial value about them, but they are at least convenient cheques for subsequent presentation.

But what are candidates to pledge themselves to? An undefined amendment of the Pharmacy Act is too vague a thing to ask for. This, then, is why the work which the Pharmaceutical Council has deputed to a committee is urgent. If that committee ean devise a formula on which the trade can agree, and which can be submitted to parliamentary candidates as in the public interest, it will render a notable service to pharmacy. The "if" is a very tough one from any point of view, and the problem is not an easy one even if the disposition to concordance were much more manifest than it is. For the main, if not the sole, purpose of the coming Pharmacy Bill must be at least a restraint of company pharmacy, and it will certainly be difficult for the chemist A.B. to ask the candidate C.D. to do what he can to stop the rivalry of the stores X.Y.Z. down the street, and to satisfy him that the demand is made in no self-seeking spirit

If, however, it is difficult to place much reliance on the possibilities of a general election, there is room for a good deal of confidence in the ultimate success of a wisely drafted and firmly backed demand on Parliament for the fulfilment of the intentions of the Pharmacy Act. Recent discussions have shown that there are influential members of Parliament who have a very fair apprehension of the merits of the claim we wish to bring before them. They appreciate the strength of our case, and they also realise its weaknesses—the latter perhaps almost too keenly. It would not be worth spending a single postage-stamp to bring before such men so inherently hopeless a scheme as that which the Pharmaceutical Council submitted to the Lord Chancellor early last year.

But though there might be good reason to hope for support for a moderate and reasonable measure if it could be got before Parliament, there is the great initial difficulty of getting one introduced. We sadly want a champion. The figures quoted above show that we are entitled as a class to barely two of the 670 seats in the House of Commons. There is one Irish chemist and druggist in the present Parliament. If in the next we could return him and get in also a British representative, such as Mr. Evans or Mr. Carteighe, we should be as strong as we have any right to hope for. Even then our chances would be slim enough, unless we could secure the powerful assistance of some old parliamentary hand. Here, then, comes in the great service which such a man as the Lord Chancellor—or, as he may be

in the next Parliament, the ex-Lord Chancellor—could render us. It is above all things to be hoped that some attempt will be made to arrange terms with Lord Halsbury before a Bill is finally drafted. Surely it would be possible to convince him that his clause about ourselves was not the quintessence of wisdom and justice. A definite understanding with representatives of the medical profession—say, the Parliamentary Committee of the British Medical Association—would also be good policy from a tactical point of view, and would be almost as useful to them as it would be to us. These are considerations which ought to be taken into account if we are entering on a campaign with a real desire to win. If we only want to keep alive opportunities for the display of dialectic skill, they are of no particular importance.

## German Trade.

THE report of the late Sir Charles Oppenheimer on the trade of Frankfort-on-Main for 1899 (written shortly before his death) is really a report on the commerce of the whole of the Empire for that year, and supplies important fresh evidence as to the rapid industrial development of Germany. The standard of 1898 has been fully maintained, and the great improvement which set in in 1895 shows, so far, no signs of abating. Last year was the bestbusiness period of the century, and at its close the commercial position was so excellent that no evidence of any threatened retrogression was anywhere to be seen. According to the Consul, Germany's share of the world's trade has, since 1882, advanced from about 10 to 11 per cent., whilstthat of France has fallen from 11 to 8 per cent., and that of the United Kingdom from 19 to 16 per cent. The value of the imports in Germany last year was 274,793,000l, as against 271,984,000*l*. in 1898, and of the exports 207,585,000*l*., as against 200,528,000l. The United States ranks first in the import list, Great Britain coming second, and Russia third, but in the export tables Great Britain takes the premier position, Austria-Hungary and Russia being second, and America third. The export trade to the United States has, however, developed very fast lately, and during the past two years has nearly doubled, though during 1893 the percentage of gain was not so large as in 1898. The Consul comments upon almost every branch of industry except that of chemicals, which he dismisses in a line to the effect that "thestate of affairs was good throughout." He, however, gives a couple of pages about artificial indigo and the coal-tar industry, and traces the history of the Badische Anilin und Soda Fabrik at Ludwigshafen, which is rather a stale story now. He significantly adds that "to-day the fate of East Indianindigo-culture lies, unfortunately, in the retorts of the-' As far as the price is concerned, the chemical-factories.' manufacturers of the artificial article follow the plan of always keeping it a fraction below that of the natural product. So far only a portion of the world's entire demand for indigo can be produced by the synthetic method, but in course of time the Consul anticipates that "chemistry alone" will supply the world's needs. We think, however, it will be some years yet ere this comes to pass, as since the introduction of the synthetic product indigo planters have arranged to grapple with the keen competition, chiefly by improving their methods of manufacture. As matters now stand, there is very little profit attached to the indigo business, but it is to be hoped that the new or terminal market which has recently been opened in London will put the trade on a more satisfactory basis. This market applies to business for future delivery, and it will be conducted through the London Produce Clearing-house. The German coal-tar

industry is briefly touched upon by the Consul, who mentions that according to the last census, taken in June, 1895, there existed in Germany twenty-five factories for the manufacture of aniline and aniline colours, and forty-eight factories for the production of other coal-tar products. The aniline-works employ 7,266 hands, and the latter factories 4,194 hands. To show the development of the industry we give the export figures for the past five years:—

_	Alizarine	Aniline oil Alkaloids	Aniline and Other Coal-tar Products
1895 1896 1897 1898 1899	Tons 8,928 8,526 8,641 9,321 9,536	Tons 7,135 7,708 9,178 12,360 12,275	Tons 15,789 16,233 17,639 19,712 22,704

Sir Charles Oppenheimer states that the development of the foreign trade of Germany is watched by the people with much pride, and that the admiration of this progress expressed so freely abroad has aroused an unmistakable desire in the Teuton to oust other nations from the various markets of the world wherever possible. "Were it not," he adds, "that the home market has been in so favourable a position this pressure would have made itself felt abroad with even increasing vigour. All sorts of measures and methods for advancing exports are discussed with great interest, as, for example, the improvement of Consular reports, the coalition of a very extensive number of manufacturers into a German Board of Industry, and the erection cf a central office of information for all export interests on the pattern of the Phila lelphia Institute." So it looks as if the competition we may expect from Germany will be even more severe in the future than in the past.

# Congressional Pharmacy.

THE papers read at the Congress of Pharmacy in Paris were in many cases good, and in a few really excellent; but there was a good deal of compilation, and one would hardly describe them as being up to the standard of many of those read at the last meeting of the British Pharmaceutical Conference. Schlagdenhauffen and Pagel, following on the recent researches of Gautier, who declares that arsenic is a normal constituent of the thyroid and thymus glands and the brain, have used chromyl chloride to destroy the organic matter, and now state that the testicles and ovaries also normally contain the metalloid The latter-named scientist is responsible for the method used for destroying the organic matter with chromyl chloride, and has just obtained his doctorate in pharmacy on a thesis dealing with this subject. By this process he claims that the examination of glycerin for arsenic is much more satisfactory than by any other. Dr. Carles's notes on the pharmacology of fresh kola-nuts were of some interest, although they were in the main a résumé of what we have long known. The superior value of the fresh kola-nut is due to the fact that the ferment koloxydase is destroyed when the nuts are dried, and the caffeine and theobromine are converted from their soluble forms into insoluble combinations—to the extent of three-fourths at least. A temperature of 70° C. serves to destroy the power of the ferment. The original soluble combination of the alkaloids, which exists in the fresh nuts, is kolanine. Carles claims that it is not a glucoside, although a little glucose is found on the decomposition of the compounds present in the nut. This, he states, is due to

the effect of the ferment on the tannin present. For full pharmacological value, the preparations should be from the fresh nuts. The preparation recommended is a pulp of equal parts of the fresh fruit and sugar, which keeps well.

The behaviour of the leaves of the Arabian plant *Melonkieh* in the air caused Khouri to examine them carefully, with the result that he claims that there exists in them a soluble ferment of the nature of an oxydase. He did not, however, succeed in isolating it, and no definite information as to its characters or properties is forthcoming.

M. Triollet devotes no little trouble and space to pointing out that 110 grammes of iodoform and 1,000 grammes of gauze do not yield a 10-per-cent. finished product, and also goes on at tedious length to show that 55 grammes of iodoform and 100 grammes of gauze do not yield a 50-percent. gauze. The only point at all in his paper was to propose what is self-evident—viz, that the expressions "10 per cent.," &c, should represent the amount of active ingredient in the finished product.

A paper which is suggestive enough, but entirely unconvincing in the details of the proposed "process," is that by Vaudin on "A New Method of Milk-control." Vaudin finds that milk coloured with a definite quantity of pure indigocarmine solution becomes decolorised in a certain time, and from six solitary experiments endeavours to show that the decolorisation is the more rapid as the number of bacteria increase. No cultivations were undertaken, and no figures other than the percentage of lactic acid in the milk are given. He proposes to judge milks by the time taken for 100 c.c. of milk to decolorise 5 drops (sie) of a solution of pure sulphindigotate of potash (01 per cent.). This should not be less than twelve hours at 15° C., eight hours from 15° to 20°, or four hours above 20°.

M. Leprince read a paper on the action of ammonium persulphate, dissolved in sulphuric acid (concentrated and dilute), on certain bodies, especially those likely to be met with in toxicological examinations. The conclusion the author comes to is that in certain cases the colour-reactions are of sufficient use to be valuable in toxicological examination. We may be biassed against colour-reactions, but a careful examination of the colours given by the numerous alkaloids experimented upon compels us to regard the whole thing as absolutely valueless. Colour-reactions when you are using strong sulphuric acid are very useful—so long as you know the substance you are testing for. The remaining papers and reports on unification of analytical methods are not of sufficient interest to require further mention.

# Carbolic Scheduling.

CONSIDERABLE interest has been aroused by the publication of the carbolic-scheduling Order, if we may judge from the numerous inquiries addressed to us by both wholesalers and retailers. In order to ascertain exactly what preparations will need labelling in accordance with the regulations governing the sale of articles in Part 2 of Schedule A of the Pharmacy Act we have made inquiries of the leading manufacturers of disinfectants.

Messrs. Kay Brothers, Stockport, inform us that the only preparation to which the new Order will apply is their soluble santary fluid when sold retail.

Messrs. Newton, Chambers & Co., Thorncliffe, Sheffield, say they do not manufacture any articles which require labelling "Poison."

The Boundary Chemical Company, Liverpool, have made a practice of labelling their poisonous preparations "Poison," but their liquid sheep-dip, which has hitherto been classed as non-poisonous, may possibly come under the regulations on account of the expression "Carbolic acid and its homologues."

The Sanitas Company (Limited) reply that, as far as the carbolic preparations they manufacture are concerned, they are not only labelled "Poison," but have the quantity of tar acids they contain specifically guaranteed and stated on the label, so that chemists will have no difficulty with their articles. This remark also applies to carbolated crossote and carbolated crocside, but the company's ordinary creocide is not a poison within the meaning of the Order.

Messrs. F. C. Calvert & Co., Manchester, have issued a circular to the trade in which they enumerate the following articles of their manufacture which after August 31 may only be sold by registered chemists:—Calvert's No. 1, 2, 3, 4, and 5 liquefied carbolic acid, Calvert's cresol, and Calvert's carbolated creosote. The last two preparations are exempt when vended for agricul-

tural purposes only.

As we mentioned last week, a deputation, representing oilmen and others, in "arrest of the decree," waited on the Privy Council. The Council have replied to them, stating that "the Order in Council has not the scope ascribed to it as it is restricted to liquil preparations above a certain strength and includes exceptions in favour of substances sold under fixed conditions for agricultural purposes. It is added that there is no reason to anticipate any interference with the distribution of disinfectants as a consequence of the Order. The memorialists are further informed that the month's notice required by Section 2 of the Pharmacy Act is not intended to do more than give the trade an interval for adjusting itself to altered conditions, and that the Pharmaceutical Society are not likely to act in a way that will bring them into collision with legitimate interests on the part of trader or consumer, nor has their present resolution anything to do with the action of the members of the Society in regard to the Companies Bill."

The lay Press, as a rule, view the scheduling of carbolic acid as a desirable thing in the interests of the public. In contrast to this we may quote the *Grocer*, which, after complaining that the announcement was only made in the *London Gazette*, and not through the recognised tradenewspapers, says that, in scheduling of carbolic acid, it

is clear that the Pharmaceutical Society's Couucil—a group of chemists—has been able to steal a march on the chemist's competitor—the grocer and general-store keeper—and to rope in a nice little piece of what has hitherto been common ground for trading. The transaction is not unlike those enclosures of "common ground" which used to be so frequent in another sense, and which have converted so much of what used to be ground for the common good into mere private preserves, fenced round with barbed wire, mantraps, and spring-guns. Those little annexations, too, were usually effected with such stealth that the parties deprived of their ground only knew of what had been done when it was too late to remove the fence.

The suggestion that the "annexation" has been done by stealth is quaint, considering the innumerable occasions on which the scheduling has been advocated by coroners' juries during the past twenty years.

# Alkali Progress.

THE thirty-sixth annual report of the inspector under the Alkali Acts has just been issued for the year 1899. From this it appears that in Great Britain and Ireland there are now 1,182 registered works—a slight increase on the preceding year, but a decrease on 1897. The inspector reports that there has been more activity in alkali-works than for many years past, and at the close of the year there was no abatement, but rather an increase, in the demand for chemical products—an encouraging fact to record after a prolonged period of depression. The report deals with many phases of the chemical industry. In speaking of one of the electrolytic plants, a curious feature presented itself in the cell-room when a number of new cells were put into operation. The atmosphere of the shed was so peculiarly irritating to the mucous membrane of the nose and throat as to suggest an escape of chlorine, but on investigation it

was found to be entirely due to alkalised hydrogen. Each bubble of hydrogen that broke on the surface of the alkaline liquor of the cell charged itself with some caustic soda, which it sprayed in the air, and the multiplication of cells intensified the nuisance. Electric lamps hanging some distance over the cells became crusted with sodium car-Remedies are being applied to overcome the nuisance. The Hargreaves-Bird electrolytic process did not make progress in 1899, although a site at Middlewich had been selected. Referring to the explosion at the Kurtz works of the United Alkali Company in May, 1899, a curious effect of the explosion on the barometer was related to the inspector by the chemist at Hardshaw Brook Chemicalworks. At the time of the explosion the barometer at the works (which are about a quarter of a mile from the scene of the explosion) suddenly rose and fell. The first effect of the explosion was a pressure which drove the mercury 25 inches above the normal height until it was arrested by the closed end of the tube. The mercury then fell to 226 inches.

The process for manufacturing sulphuric acid without vitriol-chambers attracted fresh interest in 1893 by the publication of a paper on "Sulphuric Acil" in the Chemische Industrie by Hasenclever. It is there stated that since 1838 the Badische Company, of Ludwigshafen, had ceased to use lead-chambers, and, in addition to large quantities used by themselves, had placed on the market a considerable amount of acid of the highest strength, so that the conclusion was justified that the manufacture of sulphuric anhydride had been brought to great perfection. Interest in the process was also greatly stimulated by the publication of the four English patents of the Badische Company in July, 1893, and from statements made by the patentees it appears quite possible to obtain from pyrites a gas containing 12 per cent. by volume of sulphurous acid, and from this a conversion into sulphuric anhydride of 96 to 93 per cent. Compression of the gases, which was formerly considered necessary, is recognised as no longer necessary or desirable.

Mr. Cox, of the Sunderland Gas Company, has supplied the inspector with some interesting comparisons of the cost of gas and its by-products in 1849 and 1839. In 1849 coal was 3s, a ton as compared with 12s. in 1899; coke 2s. 6d, against 10s. 6 l; tar, 2d. a gallon, against  $1\frac{1}{4}d$ . last year ammoniacal liquor, 3s. per 1,000 gals., against 40s.; whilst the proportion of the cost of coal received from residuals was in 1849 65 per cent., and in 1899 70 per cent. When 2d. per gal. was paid for tar in 1849 the production was small, but the demand by the builders of wooden ships fairly good. When the discovery of benzene and aniline dyes came to be utilised the demand sent the price up to 3d. per gal., but this was followed by a depression in prices. Another interesting fact mentioned in the report is that Claus's process of purifying gas in closed vessels by means of ammonia was anticipated as early as 1817. The inspector came across the process as devised by a Mr. Wilson, of Dublin, in an early book on gas-lighting. It is mentioned in connection with gas-production that, although the production of gas has very much increased in this country, it is to be borne in mind that coal-gas is now largely mixed with water-gas, so that the great increase in the amount of ammonia which might have been expected has not taken place. The superiority of the Dellwik-Fleischer water-gas process of Professor Lunge is spoken of in connection with the Departmental Committee's report. In this process the time of the blow is shortened from ten to two minutes, and 80 to 82 per cent. of the fuel used is converted into useful product in place of only 45 per cent. by previous

Appreciative reference is made to the excellent paper Mr. George Beilby gave before the Society of Chemical Industry at Newcastle in 1899 on the economy of fuel, many of the points being emphasised. Useful data are also given on the analyses of ammoniaeal liquors, as carried out in the inspectors' laboratory. The special methods for the estimation of sulphur as (1) sulphate, (2) sulphocyanide, (3) sulphide, and thiosulphate are given, as well as for estimating sulphide and thiosulphate separately, total sulphur, and chloride.

#### ELEPHANTIASIS PARASITE.

The second malarial expedition from the Liverpool School of Tropical Medicine has resulted in the discovery of the parasite which causes elephantiasis in the proboscis of the mosquito. The news has been wired home from Bonny, Nigeria, by Dr. H. A. Annett, but the discovery has been also made by Dr. Low in England and Captain James in India. Elephantiasis is a disease which causes hideous deformity in thousands of natives in tropical countries, and is due to a small worm which occludes the lymphatic vessels. The fact that this worm can live also in the mosquito has long been known, but the discovery of it in the insect's proboscis seems to point to the fact that it may enter the human body by the bites of these pests, as in the case of the malaria parasite.

#### THE POSTAL REFORMS.

Mr. Henniker Heaton has addressed a letter to the Postmaster-General giving his ideas as to the reforms necessary to make the Post Office more useful to the public. It is a long letter, occupying four columns of the Times. Many of the suggestions are of great interest to the commercial world, the following being the barest outlines of the more important:—The receipt for money paid for a telegram and the registration-fee for a letter should be reduced from 2d. to 1d.; the "cash-on-delivery" system, by which postmen may receive payment for goods, which answers so well on the Continent, should be at once introduced; the rates for parcel-post to the colonies need further reduction. Exchange of postal orders between Great Britain and her dependencies should be immediately established, and commission on foreign and colonial money-orders reduced, with a fixed minimum of 2d. A 6d. and 1l. 1s. postal order might be advantageously introduced, and postal orders bearing counterfoils with the number of the order on, would be a convenience. The mandat-carte system, by which a sender purchases a kind of postcard marked with the sum to be remitted, such sum being delivered, together with the postcard, to the payee by the postman, should be introduced. The charge for stamping postcards should be simply the face-value of the stamps, and postcards should be sold at their face-value only. An international postage-stamp should be established, or, if this cannot be done, foreign postage-stamps should be sold at the chief offices, so that commercial men may enclose stamps to foreign correspondents for a reply. To expedite the delivery of mails in large cities, three classes of mail-matter should be established —(1) letters and postcards, (2) newspapers, and (3) parcels each class to be delivered by separate postmen. expression "of the nature of a letter" needs to be more generously interpreted, so that a man may add such words as "With thanks, "Immediate," or "To-morrow" when ordering goods or sending receipts. Postmarks—so useful to the public as guarantees of the date of posting-should be clear, legible, and equally impressed as they are in America. The name and address in an inland telegram, when not exceeding eight words, should be sent free, and anomalies (such as charging "ironworks" as one word and "steelworks" as two words) in the tariff of charges

corrected. The rate for telegrams in France and England is  $\frac{1}{2}d$ . a word, so that the rate from England to France could easily be lowered to 1d. per word instead of 2d. as at present. Compensation should be made for errors in telegrams through carelessness on the part of employés. The regulation requiring payment of 1l. 1s. a year for registering telegraph address is unfairly pressed; and, finally, Mr. Henniker Heaton pleads for the disregard of cast-iron rules and red-tape methods as much as possible by the Department.

#### ACETIC ACID OUT OF ANYTHING.

Mr. Fordham, the North London Police-magistrate, has advanced a theory that "you can make acetic acid out of almost anything," and that the vinegar made from wood-acid is as good as that made from the malt. Another prosecution was before his Worship a few days ago, the Hackney Vestry summoning a local shopkeeper for selling as malt vinegar an article which Mr. Leo Taylor, the public analyst, said was made from wood acetic acid. Mr. Fordham said he was bound to convict, because an article was supplied which was not of the nature and substance demanded; but on the question of quality, he believed one to be as good as the other and quite as wholesome.

#### DUTY-FREE ALCOHOL IN GERMANY.

The new regulations for the use of duty-free alcohol have just been published and come into force on October 1. The details, which are very exhaustive, enact that alcohol for technical purposes, for the preparation of vinegar, for cleaning, heating, cooking, or lighting, or for scientific and medical purposes may be used duty free, subject to the special denaturising conditions. The denaturisation may either be complete, rendering the alcohol quite unfit for drinking, or partial, in which case further measures would have to be taken to prevent it being put to fraudulent uses. In the first case, 25 litres of a mixture of 4 parts of woodspirit and 1 of pyridin are added to every 100 litres of alcohol. In the second case a list is given of the different means to be employed, according to the use to which the alcohol is to be put. For the preparation of celluloid and pegamoid 1 kilo. of camphor or 2 litres of turpentine oil or 0.5 litre benzol is to be used with every 100 litres of alcohol. In like manner for the preparation of agaricin, podophyllin and other resins, the acetates of lead, photographic plates and papers, chloral hydrate, collodium, pancreatin, alkaloids, salicylic acid and its salts, santonin, tannin, and colours obtained from coal-tar, 10 litres of ether or 1 litre of benzol must be added; failing these 0 5 litre of turpentine oil or 0 025 litre of ol. animale feetid. The use of perfumes or other preparations to cover the smell or the taste of the denaturisation materials is not allowed, and in places where such alcohol is sold there must be a printed notice to that effect, also stating that it is not allowed to be sold with less than 80 parts by weight of alcohol. A supervision of the stock will take place once a year. Duty-free and undenaturised alcohol may be sold to pharmacists and manufacturers of medicines, to hospitals, laboratories, and gunpowderfactories. Apothekers may use such alcohol for the preparation of special medicaments given in a list, ext. nuc. vom., spt. camphorat., tr. digital, tr. iodi, tr. opii, tr. nuc. vom., &c.-in all about eighty articles. A certain quantity is allowed yearly, and to obtain more the vendor must prove by his laboratory journal that the quantity he has been supplied with does not suffice for the extent of his business. Alcohol may be exported from Germany without having to pay Excise-duty if in the form of essences, fluid extracts, tinctures, or perfumes. All these sold in Germany must pay Excise-duty. This export regulation enables the German manufacturer to compete with foreign producers in their own country.

# Photographic Motes.

By a Pharmaceutical Camerist.

#### VIGNETTING-PASTE.

M. Blanc, before the French Photographic Society, showed some vignetting done by means of a paste of glycerin and pigment. Glycerin is mixed to a stiff paste with brown ochre or burnt sienna, and worked on the glass side of the negative to the required vignette by means of a stump or brush. It is obvious that the use of such a preparation gives photographers an unsurpassed medium as regards adaptability. I am experimenting with a mixture of kieselgular, glycerin, and eosin, and if I succeed in turning out a workable paste, shall put up the paste in stoppered bottles for sale.

#### BICHROMATE-LAMP.

In reference to the use of a cell of bichromate-of-potash solution as a light-filter for the dark room ( $\mathcal{C}$ . §  $\mathcal{D}$ ., March 31, page 561), Messrs. Watson & Sons, High Holborn, W.C., have brought out an electric bichromate lamp. It consists of two bell-jars, one inside the other, with the intervening space filled with the colour-solution. The inner jar is weighted with shot to keep it in place, and the electric lamp of 16 c.p. is suspended inside the inner jar from a closely-fitting wooden cover.

#### IS A BACKED PLATE SLOWER?

was a question on which I heard a paper read before a Local Association. It appears that some people have contended that backing a plate alters its speed—generally for the worse—and instance the fact that an emulsion coated on paper is much slower than the same on glass. The lecturer's (Mr. W. E. Debenham) opinion was that backing does not affect the exposure save in a few exceptional cases. There is room here for a lot of experimental work, which I hope some pharmacist will take up.

#### SECOND-HAND LENSES.

There is not much business done by photographic chemists in second-hand lenses, and it is as well to bear in mind some remarks of the \*Imateur Photographer\* on the subject. An exposure to full light in a pawnbroker's window for some years leads to a yellowness which may make the lens far from a quick one. The corroding action of damp air and the possibilities of a slight strain or distortion of the mount should not be overlooked. Good lenses are so cheap nowadays that there is little inducement for a photographer to go in for a second-hand lens of uncertain capabilities.

#### CHANGES.

I hear that Major-General Waterhouse has joined the board of the Britannia Works Company (Limited), which should be greatly to the advantage of the company.—Sir William Abney, who was to have been the English juror of the photographic section of the Paris Exhibition, was unable to act owing to indisposition; Mr. C. Hertslet, Consulgeneral at Havre, takes his place as juror.—Messrs. B. J. Edwards & Co. have recently formed themselves into a limited company, and are to move to a larger factory at Ealing. This firm were the first to put colour-corrected plates on the market, and it is satisfactory to find that their business is still expanding.

#### "Instruction in Photography."

The tenth edition of Sir William Abney's book with the above title has just been issued by Low, Marston & Co. (price 3s. 6d.). This book is the best instruction-book for amateurs I know of, and I always recommend it to amateurs pushing out their craft on the dark sea of photography. The new edition is greatly improved, and it seems now to include succinct accounts of all the processes used in photography and process-work. There is a very good chapter on making gelatin-emulsion—rather verbose it will seem to a pharmacist—giving all the details an amateur photographer wants, which will be of great use to those gentlemen who very much want to make a batch of dry-plates at least once in their lives. One batch is enough for most amateurs.

#### "PHOTOGRAPHY IN COLOURS"

is another book which photographers interested in the subject buy readily. The details of all the processes for taking photographs in colour are concisely stated by Mr. Child Bayley, the editor of *Photography*, by which periodical the book is published (price 1s.). The descriptions are free from technicalities, except such as a photographer may reasonably be expected to know. When a customer comes into the shop and asks "What is the best process for colour-photography?" it is convenient to have the answer, in the shape of a one-shilling book, ready at hand—it saves time and brings profit.

#### PYRO. IN HEAVY CRYSTALS

scems to be just now the fashionable form for this everpopular developing agent. Mr. E. Merck, 16 Jewry Street, E.C., now supplies the heavy-crystal variety when required. I am inclined to think that the new form will in time supplant the light resublimed crystals with which photographers have been familiar for years, if only on account of its occupying such a small bulk as compared with the light variety. The instantaneous solubility of the old form of pyrogallol was an excellent feature; but the heavy crystals dissolve quite as readily in water as does potassium bicarbonate. Theoretically the heavy variety should be less liable to oxidation, as the crystals are closer together, and there is less air in the small bottle required for the heavy crystals than in the much larger container used for the bulkier kind.

#### PHOTOGRAPHIC VARNISHES.

THE use of chlorhydrin and epichlorhydrin is being advocated as solvents for nitrocellulose. Copal varnishes made with epichlorhydrin dry very quickly and form a hard surface suitable for retouching Valenta proposes the following formula for a negative varnish:—

Manilla copal ... ... 2 oz. Epichlorhydrin ... ... 7 oz.

Digest on a water-bath until dissolved, add

Absolute alcohol ... ... 10 oz.

and filter.

The varnish may be thinned with a mixture of epichlorhydrin (1), alchol (5). Mastic and sandarac dissolve easily in epichlorhydrin; sandarac, however, imperfectly. Chlorhydrin is a good solvent of shellac, sandarac, and kauri copal. If the solutions are heated the colours of the varnishes are much darker.

#### PLATINUM PAPER.

I have recently had an opportunity of testing the new "Luxia" platinum printing-out paper which Messrs. Berger & Co., South Hill Works, Hampstead, N.W., have placed on the market. It is a paper which ought to sell well on account of the ease of working it. The ordinary platinum paper, as is well known, only shows a faint image when printed, and has to be developed in an oxalate bath and fixed in an acid bath. With "Luxia" platinum paper, however, the image yielded on printing is of the same depth as the finished print, and, moreover, no developing is needed. All that is required is to print in daylight to the full depth desired in the finished picture, and immerse the print in a fixing bath of

 Citric acid
 ...
 ...
 4 oz.

 Hydrochloric acid
 ...
 ...
 1 dr.

 Water
 ...
 ...
 80 oz.

The unacted on platinum salts are removed, and the primrose base is changed to white. A final washing for ten or fifteen minutes completes the operation. The paper is sent out in two varieties, A giving black tones, and B sepia tones, and sells in 1s. packets.

#### DARK-ROOMS.

Mr. A. Storrs Walker, 187 Arundel Street, Portsmouth. Messrs. Randall & Son, 146 High Street, Southampton.

Mr. T. C. Cornwell, chemist, Hanley, and Mr. A. W. Ritchie, chemist, Langholm, have recently added dark rooms for the convenience of photographic customers.

## Arsenical Contamination.

ITS UNIVERSALITY.

IT is certain that many people often consume arsenic unwittingly without it producing injurious effects; on

the contrary, it may do them good.

Arsenic belongs to the most widely-distributed elements on the face of, and in the bowels of, the earth. Arsenical ores are common in nature—as, for example, the well-known mispickel, realgar, and orpiment. Arsenic also occurs in combination with cobalt, nickel, and other metals, and as uncombined "flakey arsenic."

For this reason it is not surprising to find the element in the continental mineral waters, in coal, in sea-water, and in the ashes of certain plants—not that one can abstract it from these in handfuls, but to the analyst it is there.

It has also been stated that by the continual boiling-down process arsenic will accumulate in the fur of one's tea-kettle. The writer has for some time past been diligently scarching for the poison in the ircrustations of kettles—old and new, London kettles and country kettles. He is sorry to have to admit that the legacies which the various London water companies leave behind in the kettles of the water-rate payers are sadly free from arsenic.

This will doubtless be consoling to the anxious consumer, but to the writer the deficiency was disappointing; it would have formed such an interesting subject for argument had it been present. And when one observes the pale wan faces of the inhabitants of poorer London, one cannot but speculate on the beneficial effect that a good arsenic tonic would

exercise on these ill-nourished beings.

It is, further, an open secret that to certain varieties of glass arsenious oxide is added to render them colourless, but it is greatly open to question whether this end could not be attained by other means. The matter is evidently overlooked on the grounds that there is no danger attached to arsenical glass. This question has also engaged the author's attention recently, and he finds that white-glass bottles exposed to the action of strong caustic liquids will contaminate these liquids with traces of arsenic-in the ordinary way the contents are n t affected; it is on'y by attacking the surface of the vessel with powerful solvents that the arsenic can be removed. Again it is on record that artificial manuressuperphosphates—if prepared from bonc-ash by means of sulphuric acid containing traces of arsenic, become contaminated, and the arsenic may finally be detected in the crops which have been reared with the aid of this poisoned manure.

Then, again, arsenic-eaters are known in certain quarters of the globe, and in Ringer and Sainsbury's "Therapeutics" it is stated:—

It is now established beyond reasonable doubt, that in some parts of Lower Austria—e.g., Styria—many of the inhabitants are accustomed to take considerable quantities of arsenic, sometimes as a condiment, with their food. It is said they often cat it with their checse. They usually begin with a small dose, once or twice a week, the quantity being gradually increased, until ½ gr., or 1 gr., or even more is taken at one time. This habit seems in many cases to induce no untoward symptoms. . . The women, and even the men, take it to clear the complexion, and to improve the personal appearance. . . . The men more frequently use it to enable them to undergo great exertion without fatigue—to climb mountains and accomplish fatiguing tasks, impossible otherwise. . . . Even in the arsenic-eating countries the habit is not without risk, for there is a general opinion that many fall victims to the drug.

Injections of sodium cacodylate have recently been used with great beneficial effect on consumptives; the tonic effect is said to be marvellous, and one might argue that what is beneficial in the case of a weak phthisical sufferer would surely not kill a robust mortal.

White arsenic is often the cause of intentional and unintentional poisoning. The corpse of the victim does not easily undergo decomposition, and the arsenic may be detected after a long period of time has elapsed. Indeed, the body, under certain circumstances, becomes mummified.

White arsenic and metallic arsenic dissolve with difficulty, and the little white or black particles of the same may often be detected with the aid of a lens, and removed

mechanically from the vomit or contents of the stomach, or from residual food or drink. These are then identified, and frequently lead to conclusive evidence.

Drs. Ringer and Murrell (Ringer and Sainsbury's "Handbook of Therapeutics") "found white arsenic to be very fatal to frogs, for \$\frac{1}{30,000}\$ part of the weight of the animal produced complete paralysis in 108 minutes, and the same dose killed the frog on the third day." They state, further, that "frogs are much more influenced by arsenious acid dissolved in a small quantity of soda than by sodium arsenate; \$\frac{1}{3}\$ gr. of sodium arsenate requires eleven hours to produce complete paralysis." It appears, therefore, that the higher oxygen arsenic compounds are physiologically less active than the lower ones, and for this reason, also, the presence of a small quantity of sodium arsenate would not appear to be such a dangerous matter as if arsenious oxide had been the form of contamination; and the consensus of opinion seems to be that it was sodium arsenate that was present in the effervescing phosphate of soda which recently engaged the attention of the Marylebone-Magistrate.

After many hundreds of experiments the writer finds that for avoiding a pseudo-arsenic Bird's test (C. § D., June 303 page 1073) is by far the best to employ.

# Trade=Marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost 1l., obtainable through any money-order office.

(From the "Trade Marks Journal," August 1, 1900.)

"Solignum"; for weed, vermin, and insect destroyer. By Major-& Co., 447 Wincolmlee, Kingston-upon-Hull. 230,950.

Device of bear with pestle and mortar; for antiseptic preparation. By Aktiebolaget Barningens Tekniska Fabrik, 61-63 Bondegatan, Stockholm. 231,528.

"DIALYSES GOLAZ" and signature; for dialyse I medicines. By Golaz et Cie., Saxons les Bains, Switzerland. 231,366.

"PIMELUN"; for chemical substances. By Brady & Martin, Northumberland Road, Newcastle-on-Tyne. 231,387.

"BIOTOSE" and "FERRATOGEN"; for goods in Class 3. By the Basle Chemical-works, Bâle, Switzerland. 231,387.

Device of sweep and chimney-pot, and wording; for chemical substances. By D. Reid, 23 Hopetoun Street, Bathgate, N.B. 231,675.

"Ediswan"; for electric belts and machines. By the Edison & Swan, &c., Company (Limited), 36 and 37 Queen Street, E.C. 231,571.

"Moonlight Rivivette"; for non-alcoholic cordials and syrups. By F. Palliser, 3 Derby Street, Preston. 231,308.

"Eau-de-Cologne Veritable J.M.F. 4," and device; for eau-de-Cologne. By Johann Maria Farina, 4 Julichs Platz, Cologne. 231,163.

(From the "Trade-marks Journal," August 15, 1900.)

"Tursnorme"; for embrocation. By J. Collins, 26 High Street-Harborne, Birmingham. 230,379.

"Vioform"; for all goods in Class 3. By the Basle Chemicalworks, 90 Neuhausweg, Bâle, Switzerland. 231,477.

"Cystamine" (no claim f r "Cyst"); for chemical substances... By Squirc & Sons, 413 Oxford Street, London. 231,536.

"Nontox"; for non-alcoholic tonic beverage. By F. W. Sears-50 Ludgate Hill, E.C. 231,667.

"Mother Shipton Soap" (wording and device); for perfumed soap. By G. W. Goodwin & Son, Ordsall Lane Soapworks, Manchester. 231,658.

"Floralium" (no claim for "Floral"); for perfumes and toiletrequisites. By T. F. Bristow & Co., 11 St. James's Walk, Clerkenwell, E.C. 231,137.

# Advertising Ideas.

#### FREE MEDICINE.

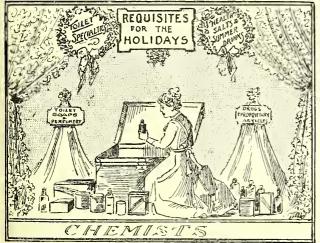
For fourteen days from April 20 sample doses of Veno's Seaweed Tonic were given free to all comers at the establishment of Taylor's Drug Company (Limited), 9 The Arcade, Halifax. The samples were distributed by a lady.

#### BOOTS' COMPETITIONS.

Some time ago Boots (Limited) offered a prize of 3l. to the person who composed the best parody on Kipling's poem "The Absent-minded Beggar," introducing into the lines the firm's spring-cleaning specialities. Boots state that they have received a number of really good parodies, and should like to give the prize to "several dozens." The winner of the 31. was Mr. Edward H. Davis, of Harborne.

#### A HOLIDAY-REQUISITES WINDOW.

The current number of Advertising (a monthly journal devoted to the subject of advertisements) has an illustration of a window which will enable a chemist to make a bid for some of the holiday-preparation custom. This is how it is done:-The chemist should induce his friend the costume-maker to loan him a lay-figure suitably attired, and



persuade his friend the ironmonger to furnish the necessary These are matters which can be arranged with diplomacy. With these properties, and a pair of suitable curtains, all that is necessary to make a most attractive display is to follow the arrangement indicated in illustration with taste and effect. Drape the back of the window with art muslin.

#### CHEMISTS' PUBLICATIONS.

Messrs. Lewis Wing (Limited), pharmaceutical chemists, Weston-super-Mare, issue monthly an attractive little local compendium and price-list of their specialities, under the title of Wing's Indexed Referee. It is excellently got-up, and the labour bestowed on preparing it must have been considerable. The indexing facilitates reference to any part of the *Referee*, and each separate portion is headed by an appropriate Shakespearian quotation.

Mr. William H. Clubb, pharmaceutical chemist, of 138 Smithdown Road, and 4 Greenbank Road, Liverpool, has issued an original and attractive illustrated price-list of his own specialities, which is deserving of notice. The publication consists of 16 pages on hot-pressed paper, and is entitled "W. H. Clubb's New Picture-book." It contains a "Modern Version of the 'House that Jack Built,'" the names of Mr. Clubb's specialities being introduced into the rhyme. The first page bears an excellent photo of the proprietor, and pages 2 and 3 equally good photos of the interiors and exteriors of Mr. Clubb's pharmacies, the remainder of the list being devoted to letterpress descriptive of proprietary specialities—all of which are duly illustrated, accompanied with admirable pictorial object-lessons on their uses, calculated to appeal to those purchasers into whose hands the price-list comes. The publication is the work of the Photo-Filigrane Company, Liverpool, and does the firm credit.

## Reviews.

Kirke's Handbook of Physiology. By W. D. HALLIBURTON M.D., F.R.S., King's College, London. 8\frac{1}{2} \times 5\frac{1}{2}. Pp. 872. 16th edition. 14s. London, 1900: John Murray.

DR. HALLIBURTON is to be congratulated on the appearance of the sixteenth edition of this book. Intended primarily for the use of medical students, it can be recommended to anyone who wishes a thoroughly up-to-date guide to modern physiology. The first seven chapters deal with the histology and development of the various tissues, which have always been one of the leading features of this work. There follows, naturally, in the next ten chapters a consideration of the functions and reactions of muscle and nerve. The circulatory and respiratory systems and the ductless glands occupy about 180 pages. Many of the illustrations in this section arc of special merit. Two hundred pages are then devoted to the various processes of metabolism. This is in some respects the most interesting and best-written section of the work. In it—as, indeed, throughout the whole subject—there are many controversial points. The author in every case has succeeded in giving the best working and most practical of the recent theories, thus placing the student on a firm basis, from which he can easily extend his information by the reading of monographs on any special point. The central nervous system is treated at fair length; the internal structure of nerve-cells is, however, omitted. The special senses are thoroughly considered. and chapters on development complete the work. Although the volume contains about 900 pages, it is by no means bulky, the paper and type being alike excellent. There are bulky, the paper and type being alike excellent. over 650 illustrations: many in the text, tinted in one ormore colours, are very clear and successful. There is a good: index.

The Pocket Formulary for the Treatment of Disease in Children. By L. FREYBERGER, M.D., M.R.C.P., M.R.C.S.  $6\frac{3}{4} \times 4\frac{1}{4}$ . Pp. 240. 7s. 6d. London, 1900: Rebman. (Limited).

THIS is the second edition of a useful little book, which has for its object the placing before the busy practitioner or senior medical student, in a handy form, all the informationrequired regarding the treatment of the diseases of children by drugs. These drugs are arranged in alphabetical order, and with each is given a brief account of its properties, use, therapeutics, incompatibles, dose, corrections, taste, examples of formulæ, and its antagonists and antidotes. The greater number of the drugs and pharmaceutical preparations dealt with are official, but there are many non-official drugs used, proprietary medicines being rigidly excluded. The following is an nn-official example :-

#### LIPANIN.

Properties .- A mixture of olive oil with 6 per cent. of oleicacid: emulsifies and is assimilated more readily than cod-liver oil; taste and odour soapy, but not disagreeable.

Usc. Used internally as a substitute for cod-liver oil, and as a

nutrient.

Therapeutics.—Recommended for the treatment of rickets.

Dose.—Dr. 1, 2, or 3 times daily after meals to children under
1 yr. of age; dr. 2 pro dosi for children 2 to 4 yrs. old; dr. 4 pro-

dosi to older children.

Correction of Taste.—The taste of oz. 1 of lipanin is disguised. by min. 2 of oleum menthe piperitæ.

Formula.—R. Lipanini, oz. 3; ol. menth. piperit, min 3. S.: One teaspoonful three times a day after meals. For a child 1 year old. Rhachitis.

The metric equivalents to the English weights are given in some cases after the dose, and special attention has been paid in the formulæ to the correction of the taste by means of agreeable flavouring agents. A list of pharmaceutical preparations suitable for local or hypodermic application is given in an appendix, and a therapeutic index is added containing the names of the more common diseases of children, and the drugs best suited for their treatment. Amongst the books drawn upon (and acknowledged) for descriptions of the sources and properties of drugs, is the eighth edition of "The Extra Pharmacor cia," by Messrs. Martindale and West-



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

#### The Suggested Pharmacy Bill.

SIR,—Mr. R. Lord Gifford might reasonably be asked to name the source of information from which the impression of loyalty to an unknown policy has been gathered, and, in addition, to explain upon what grounds such a theory is supported. The prompt appointment of a committee to draft a Pharmacy Act Amendment may possibly indicate a desire on the part of the Council to lose a reputation sufficiently well known to need reform, but does not necessarily mean that a sound Eill will be placed on the table.

The committee bear the burden of a very difficult task—difficult on account of the loss of a golden opportunity. We await therefore the development of their plans, and although we cannot all look through the same lens, we enjoy the common bond of Englishmen—the love of fair play.

With reference to a policy, we say, and rightly, "what is law for one should be for all." The rest is mere detail, and need not immediately concern us; it is just now the business of the Council. A defence of the varying suggestions it has been our privilege to read from members of the trade is not necessary: they have served too good a purpose to be treated in any other way but the greatest respect. None of them, I am sure, have been designed to form the "wonderful panacea" which has been placed to their credit.

We do not deal with a romance, and since it has been insisted that the Pharmacy Act could not be pluralised, on account of deferred legislation, the popular impression has been that company-pharmacy, having become established, should be regulated in such a way that the principle of the Act should be carried out in a manner consistent with legitimate practice—i.c., the compulsory qualification of all principals or directors of limited companies and their managers. To make this an ideal scheme, it would also be necessary to consider financing by shareholders purely and simply a monetary transaction—a method distinct from and having no influence upon the practice of pharmacy or the work associated with it.

The subject of professional recognition, so ably introduced by Mr. Gifford, has been fully recognised; and would be put into practical effect over the provision in connection with titles, concerning which there can be no dispute.

Penzance, August 15.

Faithfully yours,
WALTER H. KEEN.

#### Carbolic Acid and "Sanitas."

SIR,—In order to correct any misapprehension that may arise from the report in your last issue (August 11, page 262) of Coroner Tatham's remarks at Maidstone, will you kindly allow me to state most emphatically that "Sanitas" is absolutely non-poisonous and is not infrequently prescribed for internal administration? As most of your readers are aware, "Sanitas" is chemically totally distinct from all coaltar and carbolic preparations. Yours very truly,

C. T. KINGZETT,

August 13. Chairman, the Sanitas Company (Limited).

#### Scotch Affairs.

SIR,—I do not know how members of the Scotch Executive have managed to lose sight of the fact that, in matters pharmaceutical, they are practically without power. Having now discovered this fact, I do not think that matters will be allowed to rest where they are, as Scotland has never been the home of sinecures. There are only two courses open to the Executive: it must either secure more power or else cease to exist as a body. The question is, Which would be best

for pharmacy? The only reason which would justify the existence of an Executive in Scotland would be the power to administer the Pharmacy Act better there than it can be administered from Bloomsbury Square. In order to attain this end, the Executive would have to be invested with power to conduct prosecutions and make inquiries of various kinds without the sanction of the Pharmaceutical Council. This, again, would lead to an absolute necessity for power, on the part of the Scotch Executive, to raise funds in some way. In short, it would lead to a state of matters between England and Scotland very similar to that which already exists between Great Britain and Ireland. So long as the Imperial Government is centralised, decentralisation of the government of such a body as the Pharmaceutical Society is not desirable. If we had at Edinburgh, Dublin, and London Imperial Councils for dealing with national affairs, it might be desirable to have similar devolution of power in connection with our Society; but so long as all suggestions for legislative reform go before one Imperial body, it is a distinct disadvantage to have separate sections of our body sending in suggestions.

At the same time, Scotland is placed in an undignified position by being made the recipient of a penny rattle, in the shape of an Executive which has no power. Of course we cannot manufacture reforms like pills, but I would suggest that, in place of a sinecure Executive in Edinburgh, we should have in the London Council men elected by large constituencies all over the country, just as members of Parliament are elected. I am quite aware that this is not the usual mode adopted by such bodies as the Pharmaceutical Society, but I would call attention to the fact that under the present system nearly all such bodies are badly governed. The new arrangement, by which a secretary is to look after our affairs in each parliamentary division, is excellent, and some arrangement by which England (North and South), Scotland, and Wales should each be able to send its representatives in proper proportion so far as numbers go) to Bloomsbury Square would only be an extension of this principle. Had this system obtained at present, the Pharmacy Act could never have been shattered by the acceptance of the absurd carbolic-acid arrangement. came as a result of the Council being mainly composed of men drawn from London and one or two other large centres. It will be found later on, that the carbolic acid principle is playing "Old Harry" in the provinces, where not only sheep-dips, weed-killers, and insecticides, but rat-poisons, mice-poisons, arsenic, and strychnine can easily be shown to

beingredients used for agricultural or horticultural purposes. So far as Edinburgh goes, we want no other officer than Mr. Rutherford Hill, who is most popular there and has done excellent service as Assistant-Secretary in Scotland. In fact, I would be inclined to make the divisional secretaries, in Scotland subordinate to Mr. Hill, and charge him with the duty of visiting them from time to time, in order to receive reports and give advice; or they might meet at York Place occasionally under his presidency, for the purpose of talking over Scotch affairs, giving in reports, and asking advice.

There appears to be a little friction between some members and the permanent officials, but that might be got over with a little tact on both sides. The position of the officials is not a little tact on both sides. The position of the officials is not difficult to understand. They are the retainers of an old master who has never been a very active man, and who is now on the borders of dissolution. The work under the old master has no doubt become tinted with routine, and I do not see that the servants arc to blame for that. If it should be found that they are unable to adapt themselves readily to the young master and his ways, we must not be impatient. The officials put themselves in a more difficult position when they set themselves to keep the young master out altogether. We had a good example of this at last election in the pages of the Pharmaceutical Journal, where everything was done to resuscitate the old man, and no stone left unturned to keep out the new. This I consider to be very unwise policy, and policy calculated to stir up  $f\varepsilon$  eling against the permanent officials. They cannot now put back the hands of the clock, and if a new spirit had not been breathed into pharmacy, the doors of the establishment in Bloomsbury Square would soon have been barred by cobwebs.

It is plain, however, that when all allowances are made, there is great need to cut down red-tapeism, and officialdom

in our midst. It is absolutely ridiculous that a parent cannot get specific information about our examinations without writing to London. Not only Mr. Rutherford Hill, but every chemist in the country, ought to be placed in a position to give such information at a minute's notice. Apprentices are not likely to be so easy to get in the future as to leave room for official nonsense of this kind.

I do not see why Mr. Rutherford Hill, as Scottish Secretary, should not be charged with the duty of collecting examination-fees and making up lists of names for the various examinations in Scotland. Certainly if this course had been pursued, the awkward cases at Dundee could not have happened. If the office at London is so pressed with work, there is no reason why Scotland's work should not be

done in Scotland's office.

I observe that "Xrayser" supports me in advising that Mr. Edward Evans be called on to appear in the parliamentary arena. "Xrayser" has no doubt observed that Mr. Evans has caused quite a flutter in the political nest by declaring himself in favour of the African war. This places him on the same platform as Lord Rosebery and Sir Edward Grey, and I trust is an indication that he means to be heard of during the coming election.

Dumfries, August 13.

JAMES REID.

#### Keeping to the Engagement.

SIR,—I was much interested with "Country Bumpkin's" letter in the C. S. D., as it coincided with my own experience. I had a list of several names given me—just before I concluded my apprenticeship-of gentlemen requiring assistants, all of whom I applied to on my employer's memo-forms, thinking I should stand a better chance of getting a situation by so doing. Most of the replies were on ordinary business memo-forms, very common envelopes used in nearly every case, and the handwriting not exactly good. However, I was engaged on the following terms—salary, 261. (indoors), with increase to 30l. per annum at end of first three months; one hour off each day, and one day off from 5 o'clock; Sunday duty, and the promise of a holiday at Christmas; hours 8 to 10, and Saturdays 11 o'clock. I have now been here over six months, and not on one single occasion have I been able to leave the shop at 5 o'clock. I was allowed off at Christmas from 10 o'clock on the Saturday night, and had to leave home again at 10 o'clock on the Wednesday morning. I have been on duty many times until 10.30 at night, and am supposed to be satisfied with twenty minutes for dinner, and ten minutes for tea, and as I have all my meals in the shop-Sundays included-I have frequently four or five interruptions during a meal. As a special favour I am allowed to clean greasy mortars and slabs with pieces of newspaper, and try to wash the smell of ol. santal. flav., ol. terebinth, &c., out of measures with cold water, besides washing bottles for all. We always have one, and sometimes two, errand-boys about, besides an apprentice. This is what we serve an apprenticeship of four years for! I should like to hear the experiences of some other

#### COUNTRY BUMPKIN. (23/10.)

#### Wants a Powerful Union.

SIR,—Is it not time we chemists' assistants did something to improve the present condition of affairs? Here are we assistants, qualified and unqualified, earning in the majority of cases less hour for hour than the navvy at the docks, and yet we are supposed to dress well under circumstances not conducive to the improvement of clothes. We find our high-class chemists will not pay well; they expect us to be satisfied with a small wage and the doubtful benefits their name will afterwards secure. There is another class of chemists, who, unfortunately, are unable to pay well, and they in the future should prove the most difficult to deal with. Finally, we have the stores—the most fair of the lot—but they, in the majority of cases, exact terrible hours in rcturn for their improved pay. It occurs to me that we qualified assistants have it in our power to form a most powerful union, as our services are absolutely necessary to enable employers to continue their business. Is it not time we took the matter in hand, as other trades have done, and insisted on reasonable hours and better pay? I appeal to those who expect later on to be in business on their own account not to let selfish interests interfere with their

support of any movement in the right direction, for it is obvious that, if chemists generally can be brought to close earlier, it would benefit both themselves and their assistants without leaving them out of pocket. Special provision could be made for the dispensing of important "medicine." As to increased wages, the greater amount of life the assistant would probably put into his work would fully compensate his employer. Will any readers give their opinions as to forming a society or union of both qualified and unqualified assistants, with the ultimate intention of fixing a maximum in hours and a minimum in wages for the present hard-worked and poorly-paid assistant?

Union. (121/35.)

#### Legal Queries.

Before sending in a query for reply in this section see if the subject is not dealt with in "The Chemists' and Druggists' Diary," 1900, pages 212-226, and pages 259-262.

156/9. Ol. Ricini.—Carbolic-acid Sales.—The wording of the exemption clause is "liquid preparations of carbolic acid," so that an unregistered person could not sell carbolic acid itself, even if he labelled it "for horticultural and agricultural use."

156/44. Aspirin.—You would need to obtain permission from the Board of Inland Revenue before you could use methylated spirit in the preparation of linimentum album.

153/6. Alpha.—A month's notice or a month's salary is a recognised custom in the retail drug-trade for terminating an engagement.

154/45. Senega.—You will find, in reply to "Arnold," in the C. & D. of August 11, page 296, how to apply for the registration of the name of a proprietary article.

#### Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

#### (2) Meat-and-malt Wine: -

Rub down the extracts with a pint of the wine, and add to the rest. Shake, set as ide for fourteen days, decant, and filter the sediment.

are from "Pharmaceutical Formulas."

146/36. F. R.—Of course, it is impossible to get any per manent application for cattle to Prevent Fly from striking. Anything that keeps off fly must be volatile, such as carbolic acid, so as to warn the fly not to alight upon that particular place, and therefore application should be frequently made. One of the best preparations is Professor Robinson's, which is as follows:—

Powder the corrosive sublimate, and shake with the methylated spirit until dissolved, then add the quillaia and 1 pint of water. Macerate overnight, and add the spirit of tar and rest of water; occasionally shake well for a day or two and strain.

Directions: To prevent the fly striking, and for maggots, mix two tablespoonfuls with a winebottleful of cold water and brush the animals with the mixture.

148/1. Ajax.—The composition for Sticky Fly-papers is a mixture of boiled linseed cil (gelatinous) about 4 parts with 1 part or so of equal parts of neatsfoot oil and castor oil. If you cannot obtain the gelatinous linseed oil (a condition due to the use of driers), you may use the ordinary boiled oil plus a fifth of its weight of gum thus.

145/71. Manx.—A good deal of experiment is required before a working process can be devised for combining indiarubber with an ordinary paint, and that sort of work we cannot undertake on behalf of subscribers.

152/42. Nomad.—We do not know any paper of the name you give.

147/52. J. F.—You will find all particulars about the Registered Druggists' examination in our Educational number to be published next month, or you may write to Mr. Ferrall, the Registrar, 67 Lower Mount Street, Dublin, for the official statement respecting the examination. You will find the July examination questions in this month's C. § D. Iri-h Supplement. You can get the B.P. through any bookseller or wholesale house.

145,47. J. I.—Many thanks. It is some years since the papyrus was discovered.

123/31. Nemo.—Etching on Glass.—The etching of glass with a solution of an acid fluoride depends on the formation of crystals on the surface of the glass; small crystals are formed from concentrated solutions, hence the strength of the etching must be varied according to the effect desired. The vapour of hydrofluoric acid gives, as a rule, opaque markings, whereas the liquid acid makes transparent marks. If you do not succeed by varying the quantities in the "Pharmaceutical Formulas" recipe, try the following:—

```
      Ammonium fluoride ...
      ...
      10 oz.

      Ammonium sulphate
      ...
      1 oz.

      Sulphuric acid
      ...
      ...
      2½ oz.

      Water ...
      ...
      10 oz.
```

Mix.

Or powdered fluorspar made into a paste with sulphuric acid.

# 112/24. Nemo.—Gape-powder for chickens:— Powdered asafetida ... ... ... 5ss. Potassium chlorate ... ... ... 5iiss. Armenian bole ... ... 5ss.

Mix.

96/22. Zeta.—(1) Custard-powder:—

` '	_			
Pulv. oryzæ	•••	•••	•••	lb. ij.
Pulv. marant. na	tal	•••		lb. j.
Ext. croci fl	•••	•••		3j.
Ol. amygd. ess.				mxx.
Ol. neroli		***	•••	miij.
023	93			_

Put up in 1-oz. packets, which quantity suffices to convert a pint of new milk into a custard. Two ounces of sugar should be dissolved in the milk before mixing it with the custard-powder. (2) Blancmange-powder:—

Cornflour		•••		lb. j
Sago flour		•••	***	lb. j.
Oil of lemon	•••		•••	mx.
Oil of nutmeg	•••	•••		ηv.
Oil of cassia	• • • •	•••	•••	miij

Mix well.

Put up in 11-oz packets. To be prepared in the same way as custard-powder above, only blancmange is boiled and poured in a mould, instead of baked as custard.

96/22. Spes.—To unite wood and metal, plaster-of-Paris cement or shellac cement is required.

#### Plaster-of-Paris Cement.

Common resin	•••		•••	3 oz.
Caustic soda	•••	• • •		1 oz.
Water				5.07

Dissolve, and when required for use, mix 1 part by volume of the solution with 1 part by weight of plaster of Paris.

Shellac Cement is made by saturating orange shellac with spirit. The treacly product which results will unite almost anything.

142/15. Justitia.—Fifty pounds per annum is now the recognised salary for an outdoor assistant just out of his apprenticeship.

146/68. C. W. L.—We wish you would specify what you have tried as to the faceache and neuralgic mixture. No. 1 mixture, on page 551 of "Pharmaceutical Formulas," seldom fails.

115/20. Emp. Robor.—Gold Paint:—

 Powdered resin
 ...
 ...
 1 oz.

 Gold bronze
 ...
 ...
 2 oz.

 Benzine
 ...
 ...
 20 oz.

Mix.

There is a difficulty with the medium, however, owing to the acidity of commercial benzine. Acid causes the bronze to turn green, and destroys the brilliancy of the resulting paint. A special medium is made by the Western Manufacturing Company, Clapham, S.W., in which this difficulty has been successfully overcome.

145/74. F. W. D. (N.S.W.).—Few colonial assistants come to London, but those who do with good credentials find no difficulty in getting a situation. The N.S.W. qualification is not, of course, recognised (nor any other except that of the British Society), but that is not an insurmountable disadvantage.

#### Information Supplied.

#### Imitation Ground Glass.

An excellent composition or paint for imitation groundglass is got by rubbing down some zinci oxid, with ol. lini on a slab to a thick cream, then painting over thinly, and dabbing or stippling with stiff gum-brush; will last for years and keeps colour well.

QUÆRENS. (95/53.)

#### A Useful Wrinkle.

The following may be of interest to all and sundry A man called on me with his hand covered with hot glue and dry, and naturally suffering a good deal. He had tried oil to no purpose. I supplied glycerin as a solvent, and on his return three hours after found nearly all the glue off. The blisters were then treated with Carron oil and protected from the air.

N. B. (140/46.)

#### Potassium-sulphate Baking-powder.

You invite criticism in the preface to "Pharmaceutical Formulas," so I venture to refer to recipe 4, page 277, for "Cheap Baking-powder." I have tried both the pure and the commercial qualities of acid. bisulp. potass. and the correct proportions are 3 to 1 of sodæ bicarb., otherwise the result is an alkaline mixture which produces great discoloration of food. I would also suggest that manufacturers should be warned that if the powder is not slightly acid after the gas has been evolved then the article is sure to suffer in colour. There is one other item under this heading worthy of remark, and that is about the "spots" shown in goods after baking, usually of a dark-brown colour. Cream of tartar and soda form the only powder I know which does not produce this unsightly result, but the spots can be considerably minimised by allowing the goods to stand for a time before baking; this, however, reacts by making the pastry less light unless the powder happens to contain some ammonia carbonate or phosphate. I have seen this result attributed to soda, but such is not the case, as I have obtained the same spots by using mag. carb. instead of soda, and I attribute them to firing the gas contained in the pastry before the effervescence has ceased, or, failing this, to atoms which have not been neutralised owing to the dough being made up too dry, and thus rendering combination very F. M. (186/16.) difficult.

#### Information Wanted.

# Postcard replies to any of the subjoined inquiries will be esteemed.

156/6. Address of makers of Trajan food.

149.56. Makers of collapsible-tube filling-machines.

145/51. The present address of Christie, Baker & Co., late of Paternoster Row.

158/39. Address of makers of "Iolanthe" specialities.

# Consular Counsel.

OF four reports on trade in China received recently that dealing with the port of

#### Ракног

by Mr. Acting-Consul Nevill-Perkins is the most interesting, as that is the port from which the bulk of the Chinese oil of star anise is exported. There was a heavy deeline, however, in the exports of this drug last year, it being probable that the trade was to some extent diverted to Wuehow. Altogether 112,832lbs. were exported (32,083l.), against 209,776 lbs. (58,209%) in 1898, a decrease of 26,000%, or nearly 50 per cent. There was also a falling-off of 693 cwt. of star anise, the exports last year being the smallest since 1890, as the following figures show:-

		Cwt.	1		Cwt.
1890	•••	10,623	1895	•••	3,888
1891		6,926	1896	• • •	7,965
1892		15,375	1897	•••	5,674
1893	•••	10,751	1898	•••	2,389
1894		7,186	1899		1,696

No theory of "alternate bad years," which is so much talked about, will meet the above case. It is interesting to note that the Consul, in discussing means for extending British trade, lays stress on advertising, which must be done in the Chinese fashion by means of flaming and artistic posters, with illustrations that explain themselves for the illiterate. "Small quantities of goods should be on sale at low prices, but of good quality," says Mr. Nevill-Perkins. This at least is what is required for drugs, for which a Chinaman will sell up his house. In North China, Fellows' syrup and a certain fruit-salt (both with Chinese labels), cheap Japanese tooth pastes and powders, sell in large quantities, and an English soap is oecasionally found at a prohibitive price.

#### WUCHOW,

as a port, was only opened to trade in June, 1897, but its steadily increasing trade is having a marked effect on Pakhoi. The exports of star anise in 1899 were 1,256,400 lbs. (21,432l.), against 919,467 lbs. (15,024l.) in 1898. Other articles exported were oil of star anise, 28,267 lbs. (7,179l.), against 38 400 lbs. (8,2291.) in 1898, and cassia oil, 51,600 lbs. (7,179l.) against 33,400 lbs. (8,229l.) in 1898.

From the port of Ancona, on the Adriatic, we have a slight indication that

#### BRITISH CHEMICAL-MANUFACTURERS

are adapting themselves to the needs of their foreign customers, for Mr. Vice-Consul Tomassini reports that several chemical-firms in Great Britain have adopted the system of forwarding to their elients in Italy detailed lists and prices of articles in Italian. These lists quote weights in kilogrammes and prices in francs for goods delivered c.i.f. at the principal Italian ports. Verb. sat. sap.

#### EGYPT.

A German Consular report on the drug and perfumery trade of Egypt states that France is the principal shipper of these articles to that country; German preparations are next in demand, followed by Italian, Austrian, and Turkish medicinal productions in the order named. Evidently Great Britain is sixth on the list, but the report docs not state. The largest French houses who export perfumes to Egypt are MM. Gellet Fières, Pinaud, Violet, Henry & Demarson, Giraud Fils, Dr. Chouet et Cie., Guerlain & Viville. Germany is trying to obtain a share of the perfumery-trade by the cheap imitation of French goods at low prices, and their imports of late years have made considerable progress. There has been an increased consumption of perfumes among the natives, and this trade the Germans appear to have secured, as their travellers are repeatedly in the country with new collections of samples. The articles they excel in are eau de cologne, lavender-water, and mouth-washes. The Consul reports with the utmost sang froid that "not at all a bad imitation of Atkinson's cau de cologne has found a strong demand in late years, as well as an imitation of kalodont.'

The drug-trade in Egypt is conducted quite independently of the Government, both as to extent and the number of stores. There is no difference between the prescription-drug business and other drug establishments, of which there are fifty in Cairo, thirty-five in Alexandria, and six in Port Said. An import-duty of 8 per cent. ad val, is charged on all goods imported into Egypt.

# Apotheken=inspection in Germany.

BY A YOUNG APOTHEKER.

N Germany there exists a great difference between the apotheker and the medicinal droguerie. A droguerie can be opened anywhere the same as any other shop, but the number of apotheken or pharmacies is regulated by the State. Apotheken can only be opened and earried on by qualified apothekers. The regulations under which the apothekers work are very strict and exact, but are as much in their own interests as in that of the public. The rules laid down deal with prescriptions, retail trade, and the sale of poisons in particular. A feature of German pharmacy is the State visitation or inspection of pharmacies. These visitations are carried out by the various States of Germany on a general plan which varies in small details in different States. The visitation takes place once in two or three years, when a business is started or sold, and when any important alterations are made in the premises. The inspector is either an apotheker or a doetor, and his visits are paid without any previous notice. First, the inspector goes through the various business premises to gain a general idea of the place, and then proceeds to enter into details. He notes the condition and arrangement of the rooms, and sees that the required number of pharmaceutical utensils is provided and that they correspond to the official requirements. Having satisfied himself that the still, drying-eupboards, sieves, and other requirements are in good order, he tests the scales and weights, any not coming up to the official requirements being at once confiscated. The inspector sees that the potent and ordinary drugs are properly stored and labelled, and examines each bottle and drawer, keeping a sharp eye for any dust or cobwebs. The drugs are then submitted to various tests. First the sp. gr. of all the fluids are taken according to the Ph.G.; then he determines, for example, the amount of arsenic in liq. arseniealis and titrates the standard solutions. Stores which are found to be inferior or bad are destroyed at once, or, in ease of protestation from the apotheker, they are held over for further examination. Having proceeded thus far the inspector examines the pupils, questioning them in all branches of their profession in order to determine whether the employer is properly instructing them. The assistants are also questioned to see that they are properly qualified. The books and accounts are produced, the latter being examined to ascertain whether preparations and drugs which the apotheker ought to prepare have not been obtained ready-made. With the help of the district physician the inspector's report is drawn up. Protests are noted, and particulars of any alterations to be made are mentioned and a note given of the condition in which the business was found. This may be good, bad, or faulty, or it may be a word of praise. The report is signed by the visitor, the physician, and the owner of the apotheke, and handed on to the medical authorities. A visitation of this kind lasts from one and a-half to two days. If the business is found to be in an unsatisfactory condition the visit may be repeated within a certain time. If it is found that there are many infringements of the regulations for carrying on the business the owner can be prosecuted, and, if found guilty, punished. The district physician, it may be added, checks the correctness of the report, and has to see that the alterations suggested are earried out.

This State control, unpleasant as it may appear, gives the public great confidence in the German apothekers, and on the other hand secures for the apotheker a respect such as is enjoyed in no other country. The apotheker is also assured

of a good living at his business.

Droguerics are visited by the police authorities, but their inquiries are limited to the general conduct of the business and to seeing that the druggist does not sell goods which may only be sold by an apotheker.

# Trade Report.

NOTICE TO BUYERS.-The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

#### 42 Cannon Street, London, E.C.: August 16.

THE event of the week has been the reduction in iodine and preparations by the syndicate, which was not unexpected. On the other hand, a substantial advance of 1s. 6d. per oz. has been made in cocaine owing to scarcity of crude; German refined camphor was also advanced  $\frac{3}{4}d$ . at the end of last week. At the London cinchona-auctions the unit advanced to fully  $2\frac{1}{4}d$ , consequently a good business has been done in quinine on the second-hand market. Senega is higher this week, while shellac was lower in auction. Other changes, including those at the drug-auctions, are as follow:-

Higher	Firmer	Easier	Lower
Buchu Camphor (German) Canary-seed Caraway-seed Cinchona Cocaine Cocoa-butter Oil, lemon Senega	Copper sulphate Linseed Oil, linseed Oil, rape Sulphur	Balsam tolu Cardamoms Ginger (Jam.)	Ammonia, sulphate Calumba Cardamom-seed Cubebs Ergot Guaiacum Iodine aud salts Opium Shellac Wax, bees' (Jam.) Wax,Carnauba

#### Arrivals.

The following drugs, &c., have arrived at the principal ports of the United Kingdom from August 9 to 15 (both inclusive):—Aloes (Cape), 201; arrowroot (St. V.) 1,059, (Natal) 50; birdlime, 43; cannabis indica, 5; castor oil (Ital.) 30, (E.I.), 1,350 at Liverpool; cinchona (Java) 100, (Ceylon), 28; cochineal, 23; cod-liver oil, 170; coriander-seed, 501; cubebs, 102; cumin-seed, 6; fennel-cold, 747; fennel-cold, 737; coriander-seed, 501. oil, 110; corlander-seed, 501; cubebs, 102; cumin-seed, 5; fennel-seed, 747; fenugreek-seed, 833; guinea-grains, 121; gum arabic (E.I.) 86, (W.C.A.) 130; gum tragacanth, 14; gum, unenumerated (from Bordeaux) 22, (from Bombay) 666; honey, 6, (Chil.) 71, (Aust.) 43; kola (W.I.), 1; manna, 5; opium, 285; orris (Ital.), 42; quicksilver (Ital.), 100; saffron, 1; senna (Tiny.), 146; soy, 251; tamarinds (W.I.), 14; turmeric (Bombay), 825.

#### Cartagena Ipecaca

In the early part of the year representatives of some wholesale drug-firms in New York succeeded in inducing the Secretary of the Treasury to admit Cartagena ipecac. on the ground that its medicinal value was at least as great as the Rio variety. Instructions were accordingly sent out to appraisers at the various ports authorising them to admit this variety if of satisfactory quality. The trouble with the officials at the port of New York is that there are too many "lawyers" among them. They have not yet mastered the meaning of the words "satisfactory quality," and a study of Kipling's story, entitled "Pig," will give one a very and a study of Kipling's story, entitled "Pig," will give one a very good idea of the Cartagena ipecac. question as it at present stands at the port of New York. The head of the drug-department takes the "satisfactory quality" to mean "contain as much emetine as the Rio variety." It is pretty well known that the Cartagena ipecac. contains less emetine, hence they argue here it is not of satisfactory quality, and none of it will be admitted. The appraisers also state that the Secretary of the Treasury has no power to admit the Cartagena variety, and that a change in the law, by action of Congress, will be necessary before the drug can law, by action of Congress, will be necessary before the drug can be admitted. Statements based on "total" alkaloidal content do not carry weight with the New York Board of Appraisers.

Further, certain wholesale firms in New York are also trying to

keep the drug out, and are backing up the appraisers in their present decision, or lack of decision, rather. Pending the settlement of the above question the drug will not be admitted at New

A number of consignments have been rejected at New York, but quite a number have also been admitted at Philadelphia, and some also at Newport News. The appraisers at Philadelphia seem to take a common-sense view of the instructions seut out by the Secretary of the Treasury, and consignments have been passed without trouble. Attempts are, however, being made to stop the importation at that port, and in all probability they will succeed, unless the Washington authorities issue decided instructions. In view of present conditions some time will elapse before the question is settled.

#### Anglo-Sicilian Sulphur.

An extraordinary general meeting of the Anglo-Sicilian Sulphur Company (Limited) was held on August 10 at Winchester House, E.C., for the purpose of considering "the course to be adopted with regard to the company's existing contracts with the Sicilian sulphur-producers, and whether the same shall be renewed or modified, or whether fresh contracts shall be entered into, and modified, or whether fresh contracts shall be entered into, and upon what terms, and to confer upon the council of direction such authority as may be thought fit with regard to such existing or fresh contracts, and the renewal or modification or abandonment of such existing contracts." Mr. W. T. Brand, chairman of the company, presided, and in the course of his remarks said that the company had been very successful during the first three years of its existence, and had, besides paying very good dividends, been able to make reserves of some 118,000*l*, about 34,000*l*. of which was a special reserve against eventual depreciation of their stocks of sulphurafund they were forming in order that should it be found ada fund they were forming in order that should it be found advisable to wind up the company they might have a provision for probable loss in realising stocks at the lower market prices, which would incvitably follow on the decision to liquidate. They had also written off about 19,000*l*. from goodwill and preliminary expenses. But, although they had been successful so far, they had also been very fortunate and favoured, for the company was formed on an estimate of an annual production of sulphur in socially of 350,000 tons, whereas the production had risen in four years to some 530,000 tons a year, and the gratifying fact was that the greater part of that production had been consumed, owing greatly to the immense increase in the consumption of sulphur in the wood-pulp industry for paper-making, and to the general increase in its use all over the world for agricultural and other purposes; but, although they hoped this increase in consumption would still go on, the directors do not like to ask the shareholders to renew for a further term of five years, without the power of determining at a shorter period, should the increase in production still continue, and the consumption not keep pace with it, and they therefore propose in the new contract, which is to run till July 31, 1910, that they should have the power to determine it on giving six months' notice in January, 1903, or any succeeding January, that the contract shall cease on July 31, 1903, or any succeeding July 31. In making the new contract they would endeavour to induce a larger number of non-adhering producers to come in, and in order to do this they must offer them some inducement; for although, should the company wind up and realise its stocks, the market would probably fall 10s. to 1l. below realise its stocks, the market would probably fall 10s. to 1c. below the prices they pay at present to producers. They proposed an increase in price on the various qualities, which will amount to about 85c. per ton all round. He concluded by moving the following resolution, which was carried unanimously:—"That the directors be, and they are hereby, authorised to deal with the existing contracts between the company and the Sicilian sulphurproducers, and to abandon or renew the same upon such terms, or to agree to such modifications thereof, or to conclude fresh arrangements, as they shall deem fit."

#### Heavy Chemicals.

#### [These prices are for market-centres other than London.]

A rather quiet but on the whole steady tone continues as the A rather quiet but on the whole steady tone continues as the main feature in the heavy-chemical market just at present. Demand is fairly good, and shipments are a trifle heavier than they were. Values generally are steadily maintained at late rates. Little or no business of special moment has yet been done

for next year's requirements.

ALKALI-PRODUCE.—Caustic soda continues in good request, and Alkali-Produce.—Caustic soda continues in good request, and is very firm at unchanged rates, but with tendency towards advancement. Bleaching-powder very quiet at late rates. Soda crystals are moving more freely. Chlorates of potash and soda keep very quiet, and yellow prussiates have taken an easier turn. Lead Salts are in good demand, and prices very firm; in fact, higher figures are not improbable. Present prices are: Sugar of lead, white, 24l. 10s. per ton, less 2½ per cent. Glasgow. Sugar of lead, brown, 20l. per ton, less 2½ per cent. Glasgow. Nitrate of lead, 25l. to 25l. 10s. per ton, less 2½ per cent. Glasgow. Sugar of lead, 25l. to 25l. 10s. per ton, less 2½ per cent. Glasgow. Sulphate of Ammonia is dull, and prices have declined.

Beckton terms, 11l.; London, 10l. 17s. 6d. to 11l.; Hull and Leith, 10l. 16s. 3d. to 10l. 17s. 6d. Exports from Leith last week

amounted to 619 tons.

BICHROMATES OF POTASH AND SODA are still on the easy side. Home makes are quoted respectively  $3\frac{1}{2}d$ . and  $2\frac{3}{3}d$ . per lb., lcss  $2\frac{1}{2}$  per cent. Glasgow, for home deliveries. For export the figures are d. per lb. less.

SULPHATE OF COPPER firmer, with more business doing. Liver-

pool, 24l. 10s.; forward, 25l.

WHITE POWDERED ARSENIC is in better request at 191. 10s. per

ton ex ship Garston.

ZINC SALTS in steady inquiry. Sulphate crystals, 6l. 15s. to 7l. per ton. Chloride-of-zinc solution, 100° Tw., 6l. 15s. to 7l. per ton. Chloride-of-zinc cake, pure, 1s. per lb.

ton. Chloride-of-zinc cake, pure, 1s. per 1b.

SULPHOCYANIDES only in moderate request at late rates.

Potassium, 6\(\frac{1}{d}\). per 1b.; barium, 95-per-cent., 4d. per 1b.; and ammonium, 95-per-cent., 6d. per 1b.

LINSEED AND COTTON-SEED CAKES are firm, and fair business is passing. Linseed, 95-per-cent., pure, 8l. to 8l. 5s. per ton oilcakes, 7l. to 7l. 5s. per ton; cotton-cakes, best makes, 4l. 5s. to 4l. 10s. rest to 1 per 4l. 10s. per ton; and seconds, 4l. to 4l. 5s. per ton.

#### Liverpool Drug Market.

Liverpool, August 16.

CASTOR OIL.—The s.s. Statesman has arrived with about 1,400 cases of good Calcutta seconds, and the price has fallen to  $3\frac{7}{10}d$ . per lb. It is thought that as soon as one or two of the weaker holders are cleared out of the way the price will recover, as the next Calcutta steamer does not bring any. First-pressure French is also slightly easier, on account of the arrival of the ss.  $A_7$ -menian, which brings a fair quantity. On the spot sales are being made at  $3\frac{1}{2}d$ . to  $3\frac{1}{16}d$ . First-pressure English is held to 3.1d. for  $3\frac{1}{2}d$ .

Acacia.—Sales are reported of 10 serons at 70s. for good Soudan sorts. Prices ranging from 72s. 6d. to 80s. are being asked, the latter figure being for prime soft sorts. A small sale of ordinary Soudan sorts was also made at 63s. per cwt.

Canary-Seed.—The market is easier, and sales have been made

at 31s. to 32s. 6d. per qr.

Ginger, African.—A further arrival, of rather indifferent quality, has been offered at auction; 24s. was the only figure bid, and the lot was withdrawn.

Honey.—Sales of Californian, last year's crop, are reported at 42s. 6d. per cwt. For Chilian, at auction, 18s. was bid for 44 kegs, Pile 3, but the lot was held at 21s. 6d. Pile 2 is held for 22s. 6d. to 23s.; Pile 1, 24s. 6d., and Pile X. is held up to 32s.

IRISH Moss.—New crop is held at prices ranging from 6l. 10s.

to 10l. per ton.

Grains of Paradise.—Further arrivals have taken place during the week, and in all about 100 bags have been sold at 30s.

to 32s. 6d., according to quantity and quality.

Turpentine.—Easier at 30s. 9d. to 31s. per cwt.

CREAN OF TARTAR.—Much firmer, held in view of the strong

reports from the Continent.
GLYCERIN.—The local soap manufacturers have raised their

price for refined 2l. per ton.

BEESWAX.—Further arrival of 44 packages Chilian has taken place. Values continue steady and range from 7l. 5s. to 8l. Seven packages Gambier have been sold at auction at 7l. 5s. per place.

POTASHES are steady at 26s. 6d. to 26s. 9d. per cwt., but pearl

are almost lifeless at 52s. 6d. per cwt.

Jaborandi.—Slightly more interest is being shown in this article, but no business is as yet reported, although low offers are encouraged.

#### German Drug Market.

Hamburg, August 14.

Business in general is quiet with us, and there is also not much doing in the drug market at present.

AGAR AGAR is dearer, at 405m. per 100 kilos.

Antimony continues advancing, at 39 m. per 100 kilos.

CITRIC ACID is quiet, at 287 m. per 100 kilos.

CARAWAY-SEED has also advanced again, and is quoted now at 67m. per 100 kilos.

CAMPHOR (REFINED) has been raised by the refiners by 15m. per 100 kilos. Second hand is held to-day for 460m. per 100 kilos. Cocanne has also advanced, principally owing to the scarcity of raw material. Pure muriate is quoted now at 600m, to 610m, per kilo, according to quantity. In second hand 585m, per kilo has been paid.

ERGOT OF RYE is dull and lower.

LYCOPODIUM is quiet, at 430m. per 100 kilos. MENTHOL is firm, at 19 m. per kilo.

Quinine is still unchanged, at 49m. per kilo, as the expected advance has not yet come.

JAPAN WAX is firm and dearer, at 6½m. per 100 kilos. STAR-ANISE OIL is quiet, at 15m. per kilo. Caraway-seed oil is advancing, and cassia oil is unchanged. Peppermint oil firm, at 4.95m. per lb. for HGH, and Japanesc oil at 84m. per kilo.

### American Drug Market.

New York, August 7.

Business is of limited volume, and the general market has a tame appearance. Quotations are fairly steady, and fluctuations without special importance.

OPIUM is in poor demand, business being practically nil. Quotations are nominally unchanged at \$3.37½ to \$3.40, but these

figures can be shaded.

QUININE.—Foreign brands are still quoted at 35c. per oz., but domestic manufacturers have advanced quotations to 37c. The market is very strong, and dealers do not offer freely. Java has sold up to 34c., and quotations are now nominally 35c. to 36c. BUCHU-LEAVES are held at 18c. to 20c. for short, but little

business is transacted.

Damiana-Leaves are quiet, and prime green leaves are obtainable at 9c. to 10c.

CINCHONIDINE is firmer, in sympathy with the quinine-market. Manufacturers quote at 32c., and are not anxious to sell.

SARSAPARILLA.—Mexican is firmly held at 7½c. per lb., but sales

are small.

SENEGA is firmer, and quotations on the spot have advanced,

30c. to 32c. being asked according to quality.

Sassafras-bark is offering freely from primary centres, and quotations have fallen to 7c. iu quantity.

#### Cablegrams.

HAMBURG, August 16, 1224 P.M.—Refined camphor in second hands is firmly held at 450m. per 100 kilos. Carawayseed is dearer, at 71m. per 100 kilos. Ergot of rye is nominally 300m. per 100 kilos.

NEW YORK, August 16, 2.59 P.M.—The state of the market here is quiet. Opium is dull at \$3.35 per lb.; domestic quinine is strong at 35c. per ounce. Honduras sarsaparilla is scarce, 8c. per lb. being the price, while Senega sells at irregular prices. Condurango-root is also scarce, 24c. per lb. being the latest price. Hydrastis Canadensis is firmer at 52c. per lb. Cocaine has advanced 50c. per oz., and ergot is strong at 52c. per lb.

SMYRNA, August 16, 10 A.M.—The market here has declined, from 9s. to 9s. 4d. per lb. f.o.b. being asked for druggists' grades. At the reduction sales of about 65 cases were made, and there are further buyers at these figures. Market closes strong at the decline.

#### London Markets.

ACID, CITRIC.-No improvement in the demand can be reported, and the market is unusually quiet for the time of the year, with sellers at from 1s.  $3\frac{3}{4}d$ . to 1s. 4d. per lb.

ARROWROOT very dull. All the St. Vincent's at auction on Wednesday was bought in at  $1\frac{7}{8}d$ . to  $2\frac{1}{4}d$ . per lb.

BORAX keeps steady, at 17s. per cwt. for crystals and 18s. for powder.

Camphor.—A further advance  $(\frac{3}{4}d.)$  was announced in German refined at the close of last week, the quotation now being 2s.  $2\frac{1}{2}d$ . for ton lots for forward delivery, and 2s. 2d. for prompt. In crude, 200 piculs of Japanese are reported sold at 190s. per cwt. spot. In auction 15 cases of Japanese refined in  $\frac{1}{4}$  oz. tablets, packed in 1-lb. tin boxes, had been sold privately. There was more of the parcel to be had, however, and 10 cases were disposed of at 2s. 2d. per lb. Thirty tubs of Japanese crude were bought in at 195s. per cwt.

CANTHARIDES.—Russian of the new crop are quoted 2s. to 2s. 1d. per lb., c.i.f.

CINCHONA.—At the London auctions on Tuesday the moderate supply of 2,253 packages were catalogued, and, as will be seen from the table below, more than half found buyers at a further advance compared with last auction rates, the average unit obtained being fully 21/4.

The quantity offered and sold was as under:-

		Offered.		Sold.
East Indian cinchona	•••	1,419		1,084
South American cinchona	•••	485	•••	212
Java cinchona	•••	197	***	106
Ceylon cinchona	•••	152	***	152
				-
		2,253		1,554

... 441,761

The following were the approximate quantities of bark purchased by the principal buyers:

69,010 Agent for the Brunswick factory ... 67,536 Agent for the American factories ... Agent for the Mannheim and Amsterdam 58,218 factories ... ... Agents for the Imperial factory ... 34,660 ... ... Messrs. Howards & Sons ... 31,497 Agents for the Frankfort and Stuttgart factories 19,081 18.620 Druggists, &c. ... 301,675 Total quantity sold ... 140,086 Bought in or withdrawn ...

Total quantity offered ... The following prices were paid:— JAVA.—Ledgeriana, good stem, 10.1. to 1s. 3\darkondo da.; branch, 9d.;

root, 74d.; and bold silvery druggists 'quill, 8 fd. South Аменсан.—Of 217 bales soft Colombian (ZO), 80 sold at  $3\frac{1}{3}d$ . to 5d.; and rich,  $6\frac{1}{3}d$ . Of 35 bales red offered, 11 sold at  $5\frac{1}{2}d$ , for damaged. Forty bales of Bolivian cultivated Calisaya and 20 bales of Lima were bought in.

CEYLON.—Succirubra, ordinary to fair stem chips and shavings,

2\frac{3}{d}. to 4\frac{1}{d}.; good branch, 3\frac{1}{d}d. to 3\frac{1}{d}d. per lb.

EAST INDIAN.—Officinalis, stem chips and shavings, 5\frac{3}{d}d. to Fig. 18b1a.—One man, stein cutps and shavings,  $\sqrt{2}a$ . to  $8_{6}^{2}d$ .; ordinary to fair, 3d. to  $4_{8}^{2}d$ .; good to fine renewed  $7_{8}^{2}d$ . to 1s.  $0_{8}^{2}d$ .; fair to good,  $5_{8}^{2}d$ . to  $6_{8}^{2}d$ . Ledgeriana, natural stem chips,  $8_{8}^{2}d$ . to  $10_{8}^{2}d$ .; good branch, 7d.; and root,  $11_{8}^{2}d$ . Crown, hybrid bold quill,  $6_{8}^{2}d$ . per lb. Red, original stem,  $4_{8}^{2}d$ . to  $7_{4}^{4}d$ .; good root, 4d. to 5d.; and fair broken quill,  $5_{8}^{2}d$ . per lb.

The auction to be held at Amsterdam on August 23 will consist of 4,751 bales, 331 cases (455,950 kilos.) Java bark, entaining an equivalent 21,307 kilos. sulphate of quinine, with an average percentage for the manufacturing-bark of 5.34 per cent, against 5.44 per cent, for the July auction last, and 5 38 per cent average for the ten auctions held in 1899. In the drug-auctions 14 packages Red bark offered, of which 5 sold at from 3d. to 4d. per lb.; 8 bales of Maracaibo were bought in at 8d.

CHAMOMILES.—A fair business is being done in new Belgian flowers of first pickings at 77s. 6d. per cwt., c i.f. terms. Although cheaper offers are on the market, they refer to secondary quality only.

COCAINE.—The combined makers have advanced their prices for the hydroehloride in 200-oz. lots in 25-oz. tins from 16s. 3l. to 17s. 9d. per oz., smaller wholesale quantities being quoted at proportionately higher rates. This advance is, of course, due to the scarcity of the crude material. In second hands holders ask about 31. under these figures, but they are not keen sellers.

COCOA-BUTTER.—At auction 20 tons of Cadbury's sold at 1s.  $7\frac{1}{8}d$ . to 1s.  $7\frac{1}{8}l$ . per lb. the average being 1s.  $7\frac{1}{4}d$ ., against 1s.  $4\frac{9}{16}d$ ., or from  $2\frac{1}{2}d$ . to 3 *l*. dearer.

ERGOT.—It is said that Hamburg dealers are trying to depress this market, there being an offer of Russian at 1s. 9\frac{3}{4}d. for a 500-lb. lot. In the drug-auctions 2 bags of fair Russian sold at 1s. 8d. "without reserve.",

GALLS.—For Persian blue 61. per cwt. is now asked, and 97s. 6d. for green. Transactions are quite retail. In the drug-auctions a bag of sea-damaged Persian galls sold at 958.

GLYCERIN.—Continental advices report that prices of crude glycerin have further advanced, in consequence of which the manufacturers are keeping German distilled at very firm prices. Second hand has already made a slight advance in price; they will, however, probably be obliged to do this to a greater extent soon, as it is said that refiners purpose raising prices shortly.

IODINE AND IODIDES .- The long-expected drop in the price of iodine was officially announced on Monday, although it had practically been decided on a few days previously. True, the reduction in the erude product is only 2 d. per oz.—now 7d.—but a fairly substantial reduction has been made all round on iodide preparations, the prices of which are now as follows, those in brackets being the old quotations:-Potassium iodide, in quantities of not less than  $\hat{\mathbf{1}}$  cwt., one delivery, 9s. 5d. per lb. (10s); 14 lbs. and upwards, 9s. 8d. (10s. 3d.); and smaller wholesale quanties, 9s. 11d. (10s. 6d). Resublimed iodine, 28 lbs., 11s. 1d. (11s. 9d.); smaller wholesale lots, 11s. 4d. (12s). Iodoform, powder or crystals, 23 lbs. in one delivery, 12s. 10d. net; and smaller wholesale lots, 13s. 1d. net. Sodium iodide, 28 lbs., one delivery, 10s. 11d. (11s. 7d.); less quantity, 11s. 2d. (11s. 10d.). Of course, it is well known that the lowering of prices is due to the competition of the Japanese iodides and of ontside makes, with the result that there had been no confidence in the market since the syndicate terminated at the end of March last. Several weeks ago, however, the syndicate was again re-formed, after protracted negotiations. It will be interesting to watch if the present reduction will suffice to effectually prevent the outside competition, especially in view of the fact that Japanese iodides are an ever-increasing quantity.

MENTHOL.—The spot price is unchanged at 9s. 3 l. per lb., at which figure one holder is reported to have cleared his stock. For forward delivery, 9s. 4½d., c.i.f., is quoted. In auction 4 cases of Kobayashi crystals were limited at 9s. 6d. per 1b., and 5 cases marked MRC at 9s. 3d.

MORPHINE is quiet, though makers still maintain their price of 5s. per oz. for powder. In second-hand there are sellers at 4s, 10d.

OIL, BERGAMOT.—Quotations vary from 8s. 7d. to 9s. 9d. per lb., c.i.f., according to brands. For two cases offered in auction 3s. 9d. was paid, which may be taken as an indication of the quality.

OIL, CASTOR.—Belgian is firm at 33s. per cwt. for firstpressing spot.

OIL, Cod-Liver.—Our Bergen correspondent writes on August 10 that the cod-liver oil market is still very firm, best Lofoten non-congealing oil being held at 76s. to 77s. per barrel, f.o.b. The exports to date from Bergen amount to 5,384 barrels, against 7,917 barrels at the same time last year. There is said to be some inquiry on this market in view of the autumn demand.

OILS, FIXED.—Linseed firmer, at 33:  $4\frac{1}{2}d$ . landed in pipes, and 33s, 6l, in barrels. Reps. also firmer at 28s, 9l, and refined 30s, 3l, per cwt. Cotton steady, at 24s, 6l, to 25s, 3l. for refined in easks. Cocoanut, Ceylon, pipes, 25s., and Cochin 27s. 64. Petroleum lower, at  $7\frac{1}{4}d$ , per gal. for water-white American, and  $6\frac{1}{4}d$ . for Russian.

OIL, GERANIUM.—The Reunion variety is very scarce, and continental advices report that prices are raised with almost every transaction. The very limited cultivation is beginning to make itself felt.

OIL, LAVENDER.—English of the new crop is quoted from 34s. to 33s. per lb, according to quantity.

OIL, LEMON.—For 7 cases of commercial oil 1s. 11d was paid in auction. Privately 3s 6d. to 3s. 8d. per lb., c.i.f., is quoted by agents.

OIL, PEPPERMINT,-Genuine Mitcham oil of new crop is quoted at from 22s, to 24s, per lb, by one holder, and old crop at 22s, per lb. American HGH is quiet, at 5s. 2d. to 5s. 3d. per lb. spot. Japanese dementholised is quoted 3s.  $7\frac{1}{2}d$ ., c.i.f., but on the spot one holder quoted 3s. 9d. in Wayne County is 3s. 6d. to 4s., according to quality. In auction Japanese dementholised was held for 3:  $7\frac{1}{2}d$ . and 18 bottles of Cocking's oil sold "without reserve" at 3s. 11d. per lb.

OPIUM is quiet and unchanged, holders, however, being very firm. Buyers are deferring their purchases as long as possible in the hope that prices will be lower. Soft-shipping will be very scarce this year, and quality is not up to the usual standard, the bulk of the crop having been collected in the wet weather; up to 12s. is asked. The new arrivals of druggists' are also of poor quality, good to fine being held at from 10s. 6d. to 10s. 9d. per lb., spot, but these figures have not been paid. The market is still bare of Persian, but for arrival 14s. per lb., e i.f., is asked by importers, which precludes business; 13s. 6d. was the last figure paid.

SMYRNA, August 3.-Market quiet, but well maintained. Holders have got hold of the idea that China and the East will shortly buy again to some considerable extent, so are laying in large stocks, and paying full prices on the producing markets. It is true that our crop is large, as the heavy arrivals both on this and the Constantinople markets fully testify, but having paid high prices for the new drug, holders will not immediately sell at a loss; needy ones can always get an advance of 80 to 90 per cent. among bankers and capitalists, so can go on for a considerable time without selling. Most of the new drug held at low figures has been disposed of during the last two or three weeks, therefore all that remains costs our holders in most cases fully 6d. per lb. over and above the equivalent they can sell at now. It is likely, therefore, that we should expect a decline to June and early July prices. The that we should expect a decline to dule and early stup prices. The arrivals to date amount to 2,012 cases, against 1,107 cases at same period last year. The sales this week amount to 16 cases, including inspected Yerli at 10s. per lb., c.i.f. (8 cases).

Constantinople, August 10.—Quietness has ruled this week.

the only sales being 15 cases good to prime Karahissar at 9s. per lb., fo.b., and 20 cases ordinary druggists' at 8s. 3d. to 8s. 8d. Most of the purchases were by speculators, who paid much higher prices than was necessary. Market keeps quiet, and with a week or two of quietness we will see lower prices for ordinary druggists'.

QUILLAIA. - Easier rates have been accepted in Liverpool, about 13 tons having been sold at 13l. 15s. to 13l. 17s. 6d. per ton.

QUININE.—This has been a fairly active week in the secondhand market, and although 1s.  $5\frac{5}{8}d$ . spot was paid at the end of last week, the market on Monday advanced to 1s 53d. spot, about 60,000 cz. changing hands in various positions, 1s.  $6\frac{1}{4}d$  being paid for Oetober, and 1s.  $6\frac{1}{4}d$  for December. The advance in the unit at Tuesday's bark-sales sent up prices to 1s. 6\frac{1}{4}d. spot, as much as 1s. 7d. being paid for December. There was a slight reaction on Wednesday, and with a small business spot receded to 1s.  $6\frac{1}{8}d$ ., and December delivery to 18. 63d. To-day only a small business has been done, buyers awaiting the result of the bark shipments from Java for the first half of this month. In the drug-auctions 1 case of 1,000 oz. Taillandier's brand sold at 1s.  $5\frac{1}{8}d$ . per oz.

The exports of quinine from Java during May amounted to 29 cases, which were shipped direct to the U.K. From July 1, 1899, to May 31, 1900, the exports have been:

1899–1900 1938–99 1397–93

1,352

SEEDS.—Dutch Caraways are considerably dearer, 33s. to 37s. per cwt. being now the spot value of gool quality. There is a better demand for Canary, and, supplies being small, prices have advanced 1s. per quarter; 31s. to 32s. is wanted for fair to good Turkish. *Coriander* unchanged. *Cumin* very slow. *Linseed* firmer.

Shellac.—At auction on Tuesday about 834 cases were offered, of which 321 sold chiefly without reserve at 2s. to 3s. decline for both orange and button, fair TN being now The following rates were paid: -Second orange, medium weak flat, 58s. to 59s.; fair palish, but blocky, 59s. to 60s. Garnet G, strong free ruby, 57s. Button, firsts, blocky, 55s. to 53s.; good seconds, 54s.; good blocky ditto, 51s.; common free, 52s., and fair thirds, 43s. per cwt.

SPICES have been a steady market, especially for black pepper, which shows a hardening tendency. The usual auctions were resumed on Wednesday, but the offerings were not important and the demand was slack. All the cut qualities of Cochin Ginger were bought in without bids. rough was withdrawn at 32s.; cuttings sold at 27s. per cwt. Bright Calicut, washed rough, partly sold at 32s. per cwt. Jamaica was slow of sa e and easier, a few lots only being disposed of at 37s. 6d. to 39s. 6d. per cwt. for common, at 42s, to 46s, \$\xideta d\$. for middling, and at 54s, 6d. to 56s, for fair washed. Bengal is quoted 29s, 6t. and Japan 26s, per cwt. Zanzibar Cloves partly sold at 37d. per lb. for good fair. At the end of last week the price for delivery declined to  $3\frac{1}{2}d$ ., but since then the market has become firmer at 3\xidesdd. per lb. Good bright picked Penang sold at 9d. per lb, common being bought in at  $6\frac{1}{2}d$ . Pimento steady and firmly held; common to fair partly sold at  $3\frac{1}{2}d$ . to  $3\frac{5}{8}d$ . per lb. Fine red Nyassaland Chillies sold at 50s. per cwt, and common Zanzibar at 36s. Fine Natal Capsicums sold at 86s. and duller at 77s. per cwt. East India descriptions were bought in at 30s. per cwt. Cinnamon sold at 7d. to  $8\frac{1}{2}d$ . per lb. for fair to good quillings. Pepper is very firm, but quotations are unchanged. Singapore black is worth  $6\frac{3}{2}d$ . per lb. on the spot, and 6 d. for October-December shipment. Good Ceylon sold at  $6\frac{1}{4}d$ .; Penang was bought in at  $5\frac{7}{8}d$ . Fine Singapore white was bought in at  $11\frac{1}{2}d$ ., good Penang at  $8\frac{7}{3}d$ ., and small Ceylon at  $9\frac{1}{2}d$ . per lb.

TURMERIC.—In the drysaltery-auctions the large supply of 771 bags various descriptions were all bought in at nominal

WAX, CARNAUBA.—Heavy arrivals in Liverpool have led to a substantial decline in prices there.

### London Drug-auctions.

Both "new and old goods" were offered to-day, and there was no special feature about them. Sumatra benzoin of the cheaper grades was plentiful, and a considerable proportion of the Palembang offered was of very low quality. Mysore cardamoms were in fair supply, and met with a slow demand. The supply of Jamaica honey was sensibly reduced to day, and no really fine quality was offered. There were liberal offerings of both Brazilian and Colombian ipecacuanha, the holders of which were firm at the last auction rates. Several new parcels of rhubarb were shown, but the bulk of the offerings consisted of second-hand goods. Sarsaparilla was represented by seven different varieties, but there was practically no demand. The tone was duller than usual, and a considerable proportion of the goods was bought iu. The subjoined table shows the quantity of goods offered (in original packages) and sold publicly:-

Offered Sold |

	ffered	S	old	Offered S	old
Almonds, bitter (?)		••	0	Ipecacuanha—	
Aloes (Cape)		٠.	0	(Cartagena) 44	0
Curaçoa	47.		28	(Rio) 66	7
E African	59 .	• •	0	Jalap 36	0
Socotrine	41 .	• •	16	Kino 19	0
Aniseed	20.		0	Kola 2	1
Annatto-seed	9.	•••	0	Lemon-juice 17	17
Areca-nuts	19 .		16	Lemon-peel 8	0
Argol, Cape	9.		9	Lime-juice 30	0
Asafetida	<b>1</b> 59 .		0	Liquorice-root 40	0
Asphaltum	51 .		0	Manna 8	1
Balsam, copaiba	15 .		5	Mastich 11	0
Peru	4.		0	Menthol 9	0
Tolu	21 .		1	Musk 5	1
Benzoin—				Myrrh 28	0.
Palembang	90 .		15	Nux vomica 287	0
Siam	52 .		5	Oil, bergamot 2	2
Sumatra	224 .		50	cajuput 21	0
Buchu			9	camphor 100	Ō
Calumba	561		267	cassia 15	0
Camphor—				eucalyptus 48	0
(Jap. crude)	30 .		0	lemon 10	7
(Jap. ref.)		•••	15	lemongrass 3	Ö
Cardamoms	*		86	lime 23	0
Cascara sagrada	50 .		10	orange 1	0
Cascarilla			0	peppermint 28	18
Cassava-flour	-	•••	0	rose 4	0
Chillies	0.5		0	wintergreen 1	0
Chiretta	54		0	wood 6	0
Cinchona	28		5	ylang-ylang 1	0
Coca-leaves	51	•••	41	Orange-peel 35	3
Cocculus Indicus	172		2	Orris 40	26
Colocynth	25		5	Otto of rose 4	4
Croton-seed	63	•••	0	Patchouli 7	3
Cubebs	40	•••	10	Pistachio kernels 4	0
Cumin-seed	44	•••	0	Quinine 1	1
Cuttle-fish	91	•••	15	Rhatany 24	0
Dill seed		•••	0	Rhubarb 162	13
Dragon's-blood	39	•••	3	Sarsaparilla 142	13
Elemi		•••	0	Scammonium 11	0
Ergot of rye		•••	2	Senna-	
Fenugreek-seed		•••	0	Alexandrian 152	11
Galbanum	_	•••	0	Tinnevelly 228	140
Galls		•••	1	Soy 10	0
Gamboge		•••	0	Squills 4	0
Gentian		•••	0	Tamarinds 88	14
Guaiacum		•••	2	Thyme-seed 5	0
Gum acacia		•••	21	Tonka-beans 13	1
accroides	21	•••	0	Tragacanth 2	Ú
Honey—	E.F.		0	Turmeric 9	0
Australian		•••	88	Vanilla 15 Wax (bees') 883	0 44
Jamaica	100	•••	00		0
				Japanese 70	U

Aloes.—Of Curação aloes, five boxes fair brown livery, part turning capey and slightly drossy sold at 19s. per cwt., and a nondescript lot of 23 boxes realised 15s. A few kegs of Socotrine sold at 70s. per cwt., subject, and another lot of 10 kegs at 75s. Eighteen cases of Cape offered were all bought in at from 233, to 293, for fair to good seconds, part drossy and softish. About 200 cases of this variety have arrived this week. The East African aloes previously offered were bought in without mention of price.

ARECA.—Small to bold Ceylon seed sold at 16s per cwt. (16 bags). Another lot of 3 bags good bold but slightly wormy were held for 17s.

Argol.—Good grey Cape sold at 45s, and pinky at 41s.,

Asafetida.—The bulk of the new arrivals from Bombay was so low in quality that there was no bidding for it.

Balsam Copaiba.—In Liverpool small sales of Maranham have been made at 1s. 5d. to 1s. 6d. per lb, the higher figure being paid for good bright. At the London auctions 5 cases of fair pale cloudy to dark mixed Bahia sold at 1s. 4d.

Balsam Tolu was slightly easier in auction, 1s. 3l. being paid for drossy quality. For another parcel of good hard 1s. 5l. per lb. was wanted, and this is the limit privately for fine.

Benzoin realised unchanged rates, fair Sumatra seconds selling at from 6l. to 6l. 10s. per cwt., and good ditto, well packed, with small to medium white almonds, 7l. 10s.; for fine seconds 9l. 15s. was wanted. Siam: pea and bean size almonds, free, but rather dark, 6l. 15s. per cwt., good fair pickings 91s., and dark ditto 63s. Two cases of bright pea and bean size almonds, part blocky, sold without reserve at 7l. 2s. 6d. Fair glassy Palembang seconds sold at 57s. 6d.; low woody block was bought in at 42s. 6d. to 47s. 6d. nominally.

BUCHU-LEAVES were about  $\frac{1}{4}d$ . per lb. dearer in auction,  $8\frac{1}{4}d$ . per lb. being paid for good green round leaf (3 bales), and for fair ditto  $7\frac{1}{2}d$ . was paid (6 bales). Privately sales have been made at 8d. There have been no arrivals.

CALUMBA.—Prices were lower in auction to-day, a parcel of 267 packages selling at from 12s. to 13s. 6d. per cwt., subject to seller's approval, for fair natural sorts, and 10s. 6d. for sea-damaged. Another lot of 257 packages was withdrawn, owing to the low prices accepted by the first-selling broker. Good bright yellow washed root was limited at 40s. per cwt.

Cardamoms.—A fair selection was offered at auction to-day, but fine grades, of which there were only a few cases, were about 2d. lower; while medium qualities were irregular, but unchanged. The following prices were paid:—Ceylon-Mysores: Good pale, medium to bold round (Gallantenne), 3s. 9d.; bold dullish long, 2s. 9d. to 2s. 10d.; pale medium long, 2s. 4d. to 2s. 7d.; small to medium pale, 1s. 9d. to 2s.; good splits, 1s. 6d.; small pale, 1s. 2d. to 1s. 6d.; brown and split, 1s. 1d. to 1s. 4d. Ceylon-Malabar were all bought in. A parcel of 5 cases fair seed, catalogued as "damaged by heat and steam," sold at from 1s. 6d. to 1s. 8d.; for sound ditto from 1s. 9d. to 2s. was paid. Cardamom-husks sold at 4d. per lb.

CASCARA SAGRADA.—Good quality new bark sold at 23s, per cwt., subject to approval. Business has been done privately this week at 22s. 6d.

CASCARILLA.—For fair to medium quill a bid of 44s. per cwt. was refused, 45s. being the limit.

COCA-LEAVES.—Good bright Ceylon leaves sold at 1s. 3d., fair ditto at 1s., dull and broken at 9d., and sea-damaged at 4d. to  $4\frac{1}{2}d$ . per lb., subject.

Cocculus Indicus.—The limit for sound was  $7s.\,6d.$ ; two bags of damaged sold at 6s. per cwt.

COLOCYNTH.—The quality offered at to-day's auction was indifferent, and only a few packages were sold, 1s. 3d. to 1s. 4l. being paid for small to medium dull apple, and 9d. for pulp.

Cubebs were about 3s. lower, a sale being made of fair berries, but slightly stalky, at 37s. A bid of 33s. was refused for another lot of fair grey. An arrival of 102 bags is reported from Singapore.

During May 670 piculs were exported from Java.

CUTTLE-FISH.—Small white broken bone realised from  $2\frac{3}{4}d$ . to 3d. per lb.

DRAGON'S-BLOOD.—Only fine quality was in request, and for this 15l. 17s. 6d. was paid for fiery block; for ordinary seedy block 9l. was paid. Dull bricky saucers were bought in at 9l., and for a new arrival of fair reed gum 10l. was required.

ELEMI.—The high prices asked to-day prevented business; 250s. was the limit placed upon pale pasty Manila gum.

GAMBOGE.—For dull ricey Saigon pipe a bid of 7l. is to be submitted; the limit in auction was 7l. 10s. Two parcels of fair bright Singapore pipe were bought in at 8l. 10s. and 9l. 5s. per cwt., according to quality.

GUATACUM sold at easier rates, 1s. 2d. per lb. being paid,

subject to approval, for fair green resin, in block, part loose. It was an odd parcel.

GUM ARABIC.—Turkey sorts were plentifully offered, and a few packages of good pale soft quality sold at 80s. per cwt.; for one case of fair picked Trieste gum 6l. 10s. was paid. In so-called Persian insoluble gum small sales, privately, have been made at from 17s. 6l. to 20s. per cwt. The stock is mostly of medium quality, and is not large.

IPECACUANHA.—The excessive quantity of Rio catalogued to-day seemed to prevent business, and practically nothing was disposed of. For fair bright sound root 11s. 9d. to 12s. per lb. was paid, and seven packages of slightly sea-damaged sold at 11s. 7d. per lb. No Cartagena was sold, the limits running from 7s. 9d. to 8s. per lb., according to quality.

LEMON-JUICE.—New crop sold at 11d. per gal. when offered without reserve.

Manna.—For flake a bid of  $1s.\ 6d.$  was refused. Gerachi sorts sold at 5d. per lb.

Musk.—Nepaul grain musk sold at 20s. per oz., subject to approval.

OIL, EUCALYPTUS.—For a parcel of 14 cases, guaranteed B.P. quality, a bid of 1s. 6d. per lb. is to be submitted. The limit in auction was 1s. 8d.

ORRIS.—Forty bags were put up without reserve, part of which were sold at from 22s. 6d. to 23s. per cwt. for brown Verona, and 28s. for bold ditto.

OTTO OF ROSE.—Four vases, each 16 oz. net, realised 10s. per oz. without reserve.

PATCHOULI.—Three cases of low quality were sold at  $3\frac{1}{2}d$ . per lb., without reserve.

RHUBARB.—Extremely slow of sale at the following prices:—Shensi: Fine small trimming root, good even pinky fracture, with a little grey, 2s. 4d. per lb. Canton: Bold, flat, dull coat, three-quarters grey fracture, one-quarter grey and dark, 1s. Eleven cases of common Shensi were offered "without reserve," and sold at 8½d. to 9d. per lb. for small and medium to bold flat, dull coat, dark fracture; and 8d. for round ditto.

SARSAPARILLA.—Slow of sale. For Jamaica there was no demand, the parcels offered being bought in at nominal rates; 1s. 6d. was the limit for a 6-bale lot, and 1s. 9d. to 1s. 10d. for another parcel. For Mexican  $5\frac{1}{2}d$  was wanted. Eleven bales of Guatemala (catalogued as Jamaica) sold at  $9\frac{1}{2}d$ ., and 7 bales damaged Guayaquil at 1s. Red and yellow native Jamaica (2 bales) sold at 1s. 1d. per lb.

SENNA.—Very little of the new crop was offered to-day, and a good proportion of it was sea-damaged. Tinnevelly, fair to good medium green leaf,  $3\frac{1}{2}d$ . to  $4\frac{1}{4}d$ .; small to medium greenish,  $2\frac{1}{4}d$ . to  $3\frac{1}{4}d$ .; and ordinary specky and brownish leaf,  $1\frac{1}{4}d$ . to 2d. per lb; and badly damaged,  $\frac{1}{4}d$ . to  $\frac{3}{4}d$ . A few bales of good green whole Alexandrian leaf sold cheaply at 6d. per lb. subject, and broken leaf at  $3\frac{3}{4}d$ .

TAMARINDS.—For syrupy West Indian 11s. 6d. per ewt. was paid, and for fair East Indian 8s. 6d.

TONKA BEANS.—One case apparently sold at 2s. 3d. per lb. for fair frosted Para. There are more to be had at this figure.

WAX, BEES'—Quiet generally. Jamaica sold with good competition at from 7l. to 7l. 10s. per cwt., according to quality, being 2s. 6d. to 5s. lower compared with last public sales' rates. There was no demand for any other description.

THE partnership hitherto existing between Messrs. W. & A. Robertson, chemists, Elgin, has been dissolved by mutual consent, as far as regards Mr. W. Robertson. The business will in future be carried on by Mr. A. Robertson.

RENEWING AIR.—Our Paris correspondent telegraphs that at a meeting of the Academy of Sciences in Paris on Wednesday, MM. Desgrez and Balthazard announced that they had discovered a simple process of purifying and renewing air indefinitely. The process depends on the property possessed by sodium binoxide of giving off oxygen and absorbing carbonic acid, and should be a valuable invention for use in submarine navigation, in mining, and in chemical work.

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It is an almost TASTELESS and ODOURLESS POWDER.

It contains nearly 80% of MEAT ALBUMEN.

It acts directly as a TONIC and creates an APPETITE.

It is not a drug, but a THERAPEUTIC FOOD.

It is easily SOLUBLE in Water, Milk, Soup, Coffee, Cocoa, &c.

## IRON SOMATOSE

## MILK SOMATOSE

Contains the tonic qualities of IRON combined with the albuminous substance of MEAT.

Causes no GASTRIC DISTURBANCE or CONSTIPATION.

Does not AFFECT THE TEETH.

Is a freely SOLUBLE preparation of IRON

contains the ALBUMINOUS MATTER of MILK combined with 5 per cent. of TANNIC ACID.

- Is slightly ASTRINGENT and NON-IRRITANT.
- Is most suitable for STRENGTHENING WEAK DIGESTIVE ORGANS.
- Is especially valuable for INFANTS & CHILDREN.

N.B.—SOMATOSE is especially valuable in all cases of Fever, Dysentery, and Influenza.—Vide "Lancet" of September 30th, 1899.

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The "GIANT" Remedy,

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Grapple with and triumph over disease with perfect east.

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FOR CHILDREN TEETHING.

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Depend upon it, Mothers, it will give rest to yourselves and

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It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for diarrhoca.

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"Our Babies' Bottle."

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With Black Rubber Tubes and Seamless
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Each Bottle in a Cardboard Box. Glass Unions 1/6 per gross extra.

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Green Bottles ( AND SCREW STOPPERS ) 44/- 43/- 42/6 45/6

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Bottle and Tube Brushes 3/6 per gross extra.

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TERMS: Net.

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Special Lettered Bottles made to order for large buyers.

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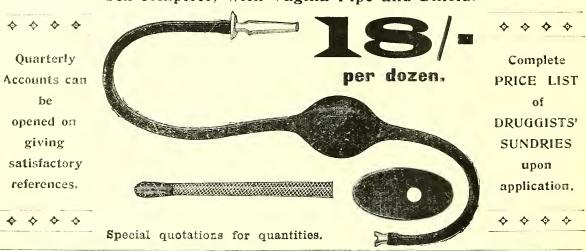
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Where will be held a larger Stock for the convenience of the Trade.

### THREE GREAT LEADING LINES.

SEAMLESS ELASTIC STOCKINGS, made in one piece without seam. Stocked in all the usual sizes,

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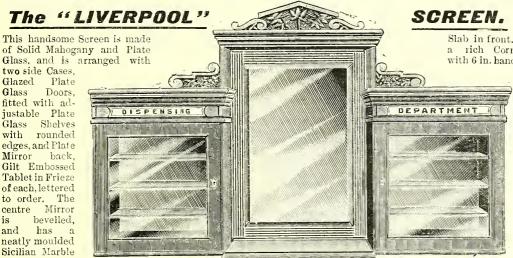
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GUARANTEED OF WELL-SEASONED BEST QUALITY MAHOGANY, PERFECTLY FINISHED IN EVERY PARTICULAR.



Slab in front. Above same is rich Cornice, surmounted with 6 in. hand-carved design in

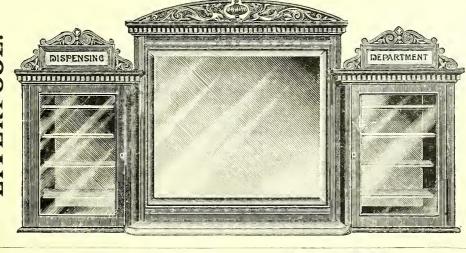
relief. Length 6 ft., height 3 ft. 2 in. under pediment, width 7 in. at ends. Height of Cases 28 ins., Marble Slab projecting 3 ins. The back of Screen is with fitted Wooden Shelving, also convenient arrangement for small Ointment Pots,

Price £7 net.

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Made of Solid Mahogany and Plate Glass, length 6 ft., height 3 ft., 2 in. under pediment, depth 8 in. at ends, height of Cases 30 in.; each side Case fitted with 4 Plate Glass Shelves, and Plate Glass Mirror back. Doors fitted with Carved Corner Pieces. Handsome Cornice all round Sereen, with dental moulding underneath. Marble Slab in centre projecting 3 inches. Arched pediment with sunk panels carved in relief, over Bevelled Mirror. Plate Glass Tablets over each side Case in Moulded Frame as shown. Screen fitted with Rouge Marble Slab. Price £9. 5s. net.

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SPECIFICATION.—Length, 6 ft. × 2 ft. × 3 ft. high, Mahogany fronted, Pine Fittings, consisting of separate Drawers for Corks, Labels, and Paper, two Stock Drawers, Cork Presser Slide, Pill Machine Slide, Ledger Racks, and strong Pine Shelves. Price £8. 2s. 6d. net.

This Counter can also be supplied with Plate Classical Parts of the Property of the Pine Structure Classical Parts of the Pine Structure Classica

This Counter can also be supplied with Plate Glass Front, forming three distinct Show Cases, fitted with Movable Shelves in each compartment. Very handsome. It can also be fitted with a projection in centre forming a Sponge Case, with a Sand Tray, Wire Rack, door to pull and lettered "Turkey Sponges." Price, with Plate Glass Front, but without Sponge Case, £8. 10s. net.

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It must be distinctly understood that above are not made MERELY TO SELL, but are in every way splendidly finished and most reliable. It is well known that Show Cases, Counters, &c., &c., can be practically made AT ANY PRICE. The above, however, are thoroughly recommended to last a lifetime, and to be a distinct ornament to any Pharmacy.

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## POROUS **PLASTERS**

Of Reliable Strength and Guaranteed Purity IN RUBBER COMBINATION.

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Containing 0.5 per cent. Root Alkaloids.

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On Cotton Cloth			3/6	5/-	8/-
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On Cotton	Cloth	0.04	•••	2/1	3/6	5/-
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Same prices as Strengthening Plasters.

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11 × 8, £1 9s. 9d.

Other sizes proportionate.

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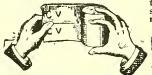
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Owing to the success of my "EUREKA" CREPE VELPEAU RUBBERLESS POROUS BANDAGES, the trade are being offered spurious and foreign made imitations. The



only way to a void being thus victimised is to distinctly ask for the "EUREKA" make. If you have been induced

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3 in. 18/-15/-2½ in. 15/-12/-2 in. 8 in. 11 in. Price per doz. Rolls, 12/-36/-2nd quality

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### PURE RUBBER BANDAGES

Varicose. Veins, Ulcers, Rezema of the Leg. Swollen and Weak

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CAUTION .- Please order Genuine Martin's Bandages, each being stamped with Dr. Martin's signature. All others are Spurious Imitations.

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### To Prevent the Spread of Tuberculosis, &c.

This Pocket Spitoon has been brought out on the lines suggested by the Medical Officer of Health for the City of Sheffield.

Made of dark blue glass, having closelyfitting nickel-plated lid.—Just fits the handkerchief pocket, and may be readily emptied and sterilised.

Price 1/6 each. 16/- per dozen. In gross lots, 15/- per dozen. Carriage paid on 1 dozen and upwards.

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SPECIALITY.—Stoppered Bottles and Show Jars, with and without Vitrified Labels, for Chemists, Perfumers, Laboratories, &c.

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Instrument Makers

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To be had of all Surgical Instrument Makers and Wholesale Houses.

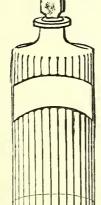
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(Conforming to the Poison Regulations).

Extract from Regulations—

b. Poisons to be kept in a bottle or vessel, distinguishable by touch from the bottle or vessel in which ordinary articles are kept in the same warehouse, shop, or dispensary.



SIZES:
8 16 20 82 40 48 02.

Height to Shoulder \ 4 5 5\frac{1}{2} 6\frac{1}{2} 7 7\frac{1}{2} in.

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N.M. 8/- 11/- 12/- 15/- 16/- 18/-dom.

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And most of the Aristocracy.

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(I. ISAACS & CO., Proprietors) Beg to inform the Trade that they have made a further reduction in the price of their Bottles, as follows:—

The NEW SHAPE FLAT BOTTLES, with rounded edges, piain or graduated-

3 & 4 oz. 9/- per gross. | 10 & 12 oz. .. 15/- per gross. | 16 ,, .. 18/-WHITE MOULDED PHIALS, plain or graduated Teaspoons—
oz. ... 3/8 per gross. 1½ oz. ... 4/9 per gross.
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PLEASE NOTE.

Six gross and upwards, assorted or otherwise, are carriage paid to any address in England; smaller quantities not carriage paid.

I. ISAACS & CO., Glass Bottle Manufacturers, 106 MIDLAND ROAD, ST. PANCRAS, LONDON.

Established 50 years. Benters-London and Westminster Bank.

### **Bottles** Good

OF EVERY DESCRIPTION

(Plain and Stoppered)

RIGHT PRICE.

HEARNS. LIMITED.

ECLIPSE GLASS WORKS, LEA BRIDGE, CLAPTON, LONDON, N.E.

OF ALL KINDS,

Aubépine, Citral, Œillet, Heliotrope, Lilas, Muguet, Musc, Neroline, Neroli, Bhodinol, Roséol, Citral of Lemon, Vanilline, Violette, &c., &c., manufactured by

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SOLE MAKER OF

GABRIEL & TROKE'S GELATINE CAPSULED

Alterative, Condition, Cordial, Cough Diuretic, Fever, Physic, Worm, Quinias Tonic Balls (Registered 81.291).

GELATINE-COATED AND FOWL DOG PILLS. SAMPLES FREE

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(Pattinson's) CARBONATE, CALCINED, AND FLUID.

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THE WORLD-WIDE REPUTATION that these Pessaries have obtained since their invention by W. J. Rendell in 1885 has induced unscrupulous persons to place upon the market worthless and injurious compounds, with colourable imitations of W. J. Rendell's labels. To distinguish the genuine Pessaries from these fraudulent concoctions, see that the Registered Trade Mark and Number, in RED INK, are upon each box thus:-

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The advantages are greater comfort, more speedy efficacy, durability, and retention of warmth and moisture. It can be washed and re-used as often as required, and obviates all the trouble of the old mode of poulticing and fomenting,

DIRECTIONS,

Simply soak it in the Water or Lotion, and apply the moist Spongy surface.

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For Rheumatism, Promoting Perspiration, and the application of stimulating Liniment. May be obtained from all Wholesale Houses.

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(ESTABLISHED 1877.)

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DIRECTIONS FOR USE.—Scratch the arm with the poir t, pish off the capsule, and rub off the dia hragm upon the arm when rubbing in the vaccine.

g Glass head; r Recess for the vaccine;
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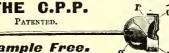


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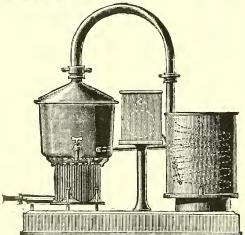
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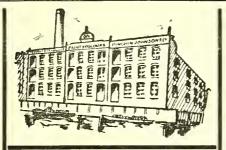
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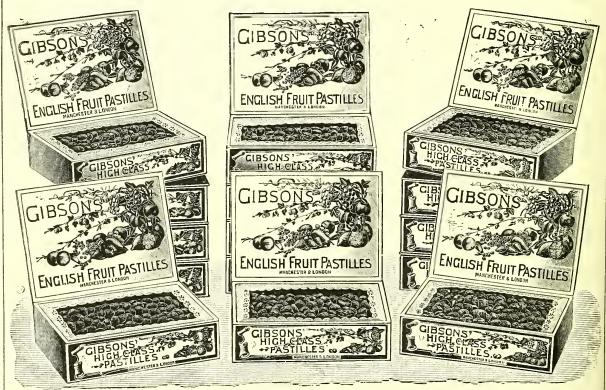
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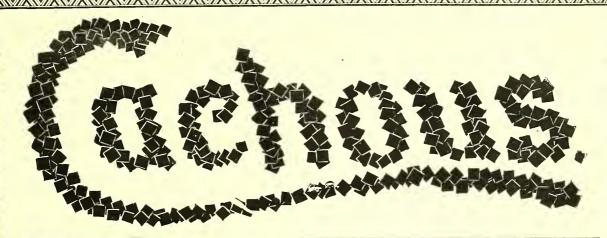


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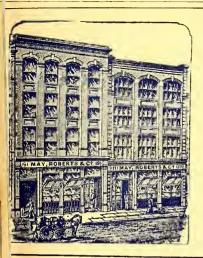
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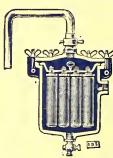
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